DOCUMENT RESUME

ED 386 802 EA 027 013

AUTHOR	Hallak, Jacques, Ed.; Caillods, Francoise, Ed.
TITLE	Educational Planning: The International Dimension.
INSTITUTION	International Bureau of Education, Geneva (Switzerland).
REPORT NO	ISBN-0-8153-2024-8; ISBN-92-3-103036-1
PUB DATE	95
NOTE	307p.
AVAILABLE FROM	UNESCO, International Bureau of Education, P.O. Box 199, 1211, Geneva 20, Switzerland (Garland Reference Library of Social Science, vol. 1032--ISBN-0-8153-2024-8; UNESCO--ISBN-92-3-103036-1).
PUB TYPE	Books (010) -- Collected Works - General (020)
EDRS PRICE	MF01/PC13 Plus Postage.
DESCRIPTORS	*Educational Administration; *Educational Development; Educational Economics; *Educational Planning; Elementary Secondary Education; *Foreign Countries; Futures (of Society); Government School Relationship; *International Education; Long Range Planning; Resource Allocation; Strategic Planning

ABSTRACT

With the exception of one essay, the content of this book is a selection of articles from past issues of "Prospects," UNESCO's quarterly review of education. Most of the articles were written in the late 1980s or early 1990s. They identify trends in educational planning and management and explain why planning is more necessary than ever. Following "Introduction: A New Scope for Educational Planning," by Françoise Caillods and Jacques Hallak, articles in part 1 examine new issues for the educational planner: (2) "Teaching/Learning Conditions in Developing Countries" (Francoise Caillods and T. Neville Postlethwaite); (3) "Planning the Quality of Education: Different Information for Different Levels of Decision Making" (Kenneth N. Ross and T. Neville Postlethwaite); (4) "Educational Reform and Planning in the Current Economic Crisis" (Martin Conroy); (5) "The Impact of the Debt Crisis on Education in Latin America: Implications for Educational Planning" (Fernando Reimers); (6) "Education, Work, and Employment in Developed Countries: Situation and Future Challenges" (Henry M. Levin and Russell W. Rumberger); (7) "Management and Administration of Education Systems: Major Issues and Trends" (Benno Sander); (8) "Managing Schools for Educational Quality and Equity: Finding the Proper Mix To Make It Work" (Jacques Hallak); and (9) "The Role of the State in Education" (Juan Carlos Tedesco). Articles in the second part examine the practice of educational planning in different regions: (10) "Educational Planning, Administration, and Management in Africa" (Vinayagum Chinapah); (11) "Educational Planning and Administration in Latin America: From Optimism to Uncertainty" (Fabio M. Bustos); (12) "Review and Prospects of Educational Planning and Management in the Arab States" (Antoine M. Gennaoui); (13) "Commonality among Diversity: A Review of Planning and Administration of Education in Asia" (Cheng Kai Ming); and (14) "Educational Planning and Management in Europe: Trends and Challenges" (Ingemar Fagerlind and Britt Sjostedt). Part 3 discusses the possible evolution of educational planning. Articles include: (15) "Seeking

New Paradigms To Plan Education for Development--the Role of Educational Research" (Daniel A. Morales-Gomez); (16) "Educational Planning Problems, Decision Making, and Communication" (Dan Inbar); (17) "Integrated Development of Human Resources and Educational Planning" (Vinayagum Chinapah, Jan-Ingvar Lofstedt, and Hans Weiler); (18) "Does Company Strategy Have Any Lessons for Educational Planning?" (Alain Bienayme); and (19) "Does Education Need Strategic Piloting?" (Sylvain Lourie). References accompany each article and an index is included. (LMI)

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EDUCATIONAL PLANNING

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On the eve of the twenty-first century, educational planning has become elastic. *It has expanded its activity to cover not only schools, but nonformal education and questions of educational quality as well. Experience has also shown that, to be effective, planning has to come closer to the action—it must be flexible, interactive and pragmatic, taking the educational, social, cultural, financial and human dimensions into consideration. As planners juggle with a statistical cocktail of projections, analyses, indicators and targets, the challenge in terms of training and capacity building is enormous.*

Planning activities, far from disappearing, have developed at both the local and central levels, both inside and outside ministries of education and in the developing and industrialised countries.

EDUCATIONAL PLANNING

The International Dimension

edited by

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Françoise Caillods

International Bureau
of Education, Geneva

International Institute
for Educational
Planning, Paris

GARLAND PUBLISHING, Inc.
New York & London / 1995

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Library of Congress Cataloging-in-Publication Data

Educational planning : the international dimension / edited by
Jacques Hallak, Françoise Caillods ; International Bureau of
Education.
p. cm. — (IBE studies on education) (Garland reference
library of social science ; vol. 1032)
Chiefly articles selected from past issues of Prospects, published
between 1984 and 1991.
Includes bibliographical references and index.
ISBN 0-8153-2024-8 (Garland : alk. paper). — ISBN 9231030361
(Unesco : alk. paper)
1. Educational planning. 2. School management and
organization. I. Hallak, Jacques. II. Caillods, Françoise.
III. International Bureau of Education. IV. Prospects.
V. Series. VI. Series: Garland reference library of social science ;
v. 1032.
LC71.2.E39 1995
371.2'07—dc20 94-46771
CIP

Printed on acid-free, 250-year-life paper
Manufactured in the United States of America

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PREFACE

With the exception of the essay "Managing schools for educational quality and equity: finding the proper mix to make it work", the content of this book is a selection of articles drawn from eight past issues of *Prospects*, UNESCO's quarterly review of education, namely: No. 52 (vol. 14, no. 4, 1984); No. 58 (vol. 16, no. 2, 1986); No. 67 (vol. 18, no. 3, 1988); No. 69 (vol. 19, no. 1, 1989); No. 70 (vol. 19, no. 2, 1989); No. 72 (vol. 19, no. 4, 1989); No. 76 (vol. 20, no. 4, 1990); No. 77 (vol. 21, no. 1, 1991).

The idea of collecting these articles and publishing them as a separate volume originated with Zaghloul Morsy, at that time editor of *Prospects*, and Professor Philip G. Altbach, until recently director of the Comparative Education Center, State University of New York at Buffalo, and presently at the School of Education, Boston College.

As of 1 January 1994, and with the retirement of Zaghloul Morsy, editorial responsibility for *Prospects* has passed to the International Bureau of Education (IBE) and, with it, the task of producing this book. Happily, the IBE has been able to count upon the enthusiastic support of Zaghloul Morsy and Philip Altbach, and to them it extends its deep gratitude. The index has been prepared by Hyaeweol Choi, and to her too we extend our thanks.

The IBE invited Jacques Hallak, director, and Françoise Caillods of the International Institute for Educational Planning, Paris, to select these works and write an introduction, giving an up-to-date overview of the educational planning situation over the past decade in different regions of the world.

Since 1989 there has been an unprecedented number of changes in the status of countries, particularly in Central and Eastern Europe. Many of the texts reproduced here were written at a time when these changes had not taken place and could hardly have been envisaged. Since these texts have been reproduced directly from the pages of *Prospects*, these changes are not reflected here and we apologise to readers beforehand for any expressions that must now be considered out of date.

The first attempt to publish collections of articles from *Prospects* in book form led to *Higher Education in International Perspective: Toward the 21st*

Century (UNESCO/Advent Books, New York, 1993, 218 pp.), edited by Zaghloul Morsy and Philip G. Altbach. *The Challenge of Illiteracy: From Reflection to Action*, the first in this series of IBE Studies on Education, was published in the fall of 1994 by Garland Publishing.

The International Bureau of Education expresses its gratitude to the authors of this collection of articles but reminds readers that the authors are responsible for the choice and the presentation of the facts contained in this book, and for the opinions expressed therein, which are not necessarily those of UNESCO:IBE and do not commit the Organisation. Furthermore, the designations employed and the presentation of material throughout the publication do not imply the expression of any opinion whatsoever on the part of UNESCO:IBE concerning the legal status of any country, territory, city, or area, or of its authorities, or concerning the delimitations of its frontiers or boundaries.

Juan Carlos Tedesco
Director
International Bureau of Education

INTRODUCTION

Jacques Hallak
Françoise Caillods

A New Scope for Educational Planning

It was in a context of unprecedented economic growth that educational planning developed in the 1960s. At the time, educational planners found themselves entrusted with the task of orchestrating the tremendous expansion of education systems, with the dual aim of both universalising education and providing national economies with the qualified manpower they needed. In most countries, one or more planning units were created. Great hopes were placed in educational planning, which was meant to serve as a framework for setting objectives and priorities, directing educational policies and optimising the use of resources.

Twenty-five years later, educational planning, just like economic planning, has lost much of its prestige. On the one hand, the universal belief that education is a basic condition for development and the great leveller of social inequality has been shaken. As a result of the economic recession, graduate unemployment has become an acute problem almost everywhere. In spite of substantial investment in education and training, poverty is growing in many countries and new environmental and health problems have emerged. Liberalism and free market ideologies have spread, creating considerable pressure to reduce the dominance of the state in all domains, including education.

At the same time, educational planners themselves have been accused of being too normative, too 'rational' and not sufficiently political or 'interactive'. Others, on the contrary, blame them for having been too political and for not having properly guided the decision-makers. The main criticism of educational planning, however, is that it has not been sufficiently concerned with implementation issues. Thus, in the 1990s, it is no longer fashionable to speak of *planning*, *programming* or *forecasts*. These words have

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been progressively replaced by such terms as *policy analysis, policy dialogue, labour market analysis* and *strategic management.*

What is at stake, however, is not the need to forecast, organise and plan. On the contrary, what is at stake is a certain type of planning. Rigid mandatory planning clearly appears unsuited to today's world, but other forms of planning are not. It remains essential to explore the future, detect major trends and anticipate problems before they become so critical that they cannot be solved. More than ever before, there is a need for a coherent framework and an overall rationality to the various projects and programmes that ministries of education, and other actors on the educational scene, undertake. It is also vital to ensure that the new resources made available for education be used in the best possible way.

The need for planning and anticipating is still there, but significant changes have occurred in education and the way it is planned, making it necessary to adapt its scope, approaches and methods, as well as the actors involved.

Many of the contributions presented in this book—drawn from past issues of *Prospects*, UNESCO's quarterly review of education—were prepared for a seminar organised in 1988 by the International Institute for Educational Planning to mark its twenty-fifth anniversary, with a view to mapping out the new trends in educational planning and management and to explain why planning is more necessary than ever. Others were prepared for the International Congress on *Planning and management of educational development* that UNESCO organised in Mexico in March 1990.

Some of the contributions presented in Part 1 examine the new issues for the educational planner, which constitute major challenges and imply a new approach. They include:

- The deterioration of teaching and learning conditions, which leads to a decline in the quality of education, making it crucial to shift the emphasis from quantity to quality and to develop a better adapted information base.

- The impact of structural adjustment programmes on public resources available for education, which makes it necessary to find new sources of finance and develop new cost-sharing arrangements involving parents, communities and industry.

- The technological revolution, which means that any country wanting to enter the *information age* has to raise substantially the educational level of its work force.

- The lack of efficiency of many administrative systems and the need to search for new paradigms highlighting decentralisation and the promotion of collective participation.

- Last but not least, the crisis of the state and the increasing lack of confidence in its ability to perform its functions adequately has direct implications on educational planning.

A number of other contributions examine the practice of educational planning in different regions. These are presented in Part 2.

Finally, the way educational planning could evolve in future is the question that papers presented in Part 3 address.

Five years later, many of the issues and trends presented in these contributions remain the same. However, the situation has changed and some new important elements have entered the game.

Mobilizing the International Community to Provide Education for All

The first new element is the Jomtien Conference and its outcome. The international community has mobilised itself to provide the broadest possible access to learning, to improve the quality of education and put more focus on outcomes. Education is considered a right, "the pre-eminent means for promoting universal human values, the quality of human resources, and respect for cultural diversity". Based on the results of a number of rate-of-return studies, education, and basic education in particular, is considered to be one of the most profitable long-term investments that any developing country can make. Hence, at Jomtien, developing countries committed themselves to making primary education universal by the beginning of the next century, and to extending learning opportunities to children, youth and adults. The donor community has similarly committed itself to backing these efforts. The implications for planning are, on one hand, that education is now a top priority of countries and donors, and on the other, it puts right back on the agenda some of the 'mechanical' approaches and instruments used for planning. Primary, and in some countries lower secondary, education cannot be generalised in such a short time without making enrolment projections, forecasting the number of teachers to be trained, analysing costs, preparing budgets, planning the location of schools, that is, without using the well-established instruments of rational planning. At the same time, however, enroling the last 10 or 20 percent of the school-age population (girls in remote rural areas, street children in large cities) and retaining them in school require diversifying the learning programmes offered and adapting them to the needs of these specific clienteles. Calling on various actors, such as local communities, private associations and NGOs to deliver such programmes, also becomes a necessity. New flexible planning instruments have to be developed and more attention has to be paid to the implementation, monitoring and evaluation of these projects.

Diversifying the Sources of Finance

Financial constraints caused by the debt burden, structural adjustment and austerity programmes continue to affect educational budgets. In order to finance the ambitious programmes for basic education, the resources in Ministry of Education budgets have had to be reallocated, taking funds away from secondary vocational, technical and/or higher education. Providing basic education for all, while respecting the need for balanced development of the entire education system, means that other sources of finance are also increasingly being tapped. Not only does the share of private education increase in a number of countries, particularly at the post-primary level, but the state is also entering into partnership with communities, NGOs and enterprises for the financing of its own schools. Parents increasingly contribute through tuition fees. More and more countries are launching student loan programmes. Communities are asked to build schools in rural areas. Enterprises are encouraged to bankroll and also to organise their own training programmes. In several countries aid agencies play an increased role in educational funding: they finance nearly all capital expenditures, a large number of programmes on teacher training or textbook development and sometimes even salaries. The conditions imposed by donors contribute to restricting the countries' freedom of action by interfering systematically in their policy choices. This role goes far beyond their actual share in the overall spending on education. It is likely to continue for many years, unless countries strengthen their capacity for policy negotiation and dialogue with donors and reinforce their planning mechanisms.

Growing Concern for Educational Quality

More and more countries are concerned with the declining quality of the educational service and are making efforts to reverse the situation. For example, textbooks are being distributed in the basic schools of a number of countries. Research has shown that improving the management of schools and granting them more autonomy in adapting content to local conditions could considerably improve the quality of education. Many countries are moving in this direction, but a lot of time and training is needed before such measures can bear fruit. Where teachers remain underpaid, or simply unpaid, because of budgetary difficulties, the issue remains untouched. Planners' concerns, however, go beyond the simple analysis of teaching and learning conditions. They now deal with questions of relevance and diversification of content and have to monitor how much pupils learn. Users of the education systems, starting with pupils and parents, increasingly demand higher quality and better 'results'. Under pressure to be more competitive, companies are also insisting on higher standards when they hire staff. Systems of assessment are therefore created in an increasing number of countries, often under the auspices of the educational planning entities. Measuring the pupil achievement levels is recognised as an integral part of the activities conducted for monitoring the development of an educational system and measuring its efficiency.

New Delivery Systems

The multiplication of nonformal and distance learning programmes allows countries to contain costs while satisfying the needs of an increasingly diverse clientele. More recently, the information technology revolution that the world is experiencing is challenging established approaches to the delivery of educational programmes at all levels—as well as the operation of education systems. The costs of computers on one hand and of information storage and manipulation on the other hand have fallen so drastically that, in the near future, electronic, audio and visual methods of communication could be used the world over. At the same time, the prevailing contrast between the *world of education*, predominantly guided by public service concerns, on the one hand, and the *world of information technology* mostly determined by private market rules, on the other hand, will need to be addressed by all actors concerned and particularly by the education profession.

Making Educational Management and Administration More Efficient

In many developing countries, administration is centralised as a result of the government's determination to control educational content and quality, its desire to reduce regional disparities and promote national unity. This is also a result of the lack of qualified staff at regional and local levels. Over the years, many such systems have become highly bureaucratic and inefficient, incapable of responding quickly to new requirements and of implementing reforms and policies defined at the central level. In an attempt to modernise their administration systems and to bring decision-making closer to the levels concerned, many countries have started devolving authority in matters of governance, financial control and content to lower levels. With a view to increasing the efficiency and quality of education, a number of reforms encourage school-based management, giving schools more autonomy to decide, in co-operation with various local actors, how to adapt the content, the teaching-learning process and the distribution of resources to meet local needs. However, such transformations take time to be implemented and their success is not necessarily guaranteed. It largely depends on the existence of adequate financial and human resources at the regional and school level, an appropriate information system and clear accountability procedures. Control and close monitoring of what is happening become essential. Compensatory measures are also needed if wide disparities are to be controlled. It then becomes the responsibility of the central level to address resource allocation problems, train the required staff, adopt relevant performance indicators, set up an elaborate and diversified information system and define clear rules and regulations.

Another major trend worth mentioning would be the 'renaissance' of the role of universities in the social and economic development of countries and the realisation that they need to undergo substantial structural changes to play this role. They should, among other things, become autonomous, detached from governments, capable of securing funds from diverse sources and developing linkages with industry. Generally speaking, they should take on an expanded role in development and community service.

The Extended Scope of Educational Planning

In a large number of countries, the state is still directly operating most schools, centres and sometimes post-secondary institutions. In such contexts, the traditional planning activities described above, extended to give more emphasis to quality aspects, continue to exist. Gone is the time, however, when the planner could hope to define, on the basis of a number of technical studies, be it rate-of-return studies, manpower forecasts or labour market analysis, what might be an optimal solution, leaving others to implement the policy and the programmes. Experience has shown that, to be effective, planning has to come closer to the action. It must be more open and pragmatic, taking full consideration of the real conditions and the educational, social, cultural, financial and human dimensions that determine the development of education systems. It has to be more operational as well, working more closely with administrators in a concerted attempt to link the plan both to the programmes and projects submitted for external support and the annual budget.

In countries where economic and financial conditions are so difficult and dependence on external aid is so strong that planning has been replaced by the continual preparation of a succession of projects, traditional planning activities, such as collecting reliable information, budget preparation or school map exercises, are crucial. These activities should take place along more strategic lines aimed at promoting a national dialogue on education, communicating the system's goals to the various partners and stakeholders concerned and clarifying priorities for the next decade.

The scenario that will emerge in the medium term, however, is one where the state will have less and less of a role to play as the direct operator of educational institutions. Its role will be confined to defining policy, co-ordinating, regulating, setting standards and certificating, evaluating and allocating resources according to well-defined criteria. The role of the educational planner in such a context is to prepare the process of decision-making and policy-formulation (constructing scenarios, conducting feasibility studies to give the best possible information to the policy-makers) and to organise or participate in a continuing dialogue with the various actors involved before the policy is formulated. Once it is formulated, the central planner is responsible for defining the rules and standards, suggesting incentive measures, and organising compensatory programmes where necessary. In addition, effective planning and management requires monitoring policy implementation and negotiating the programmes and projects.

Planning becomes much more strategic and interactive. To help them in their tasks, strategic planners have to juggle a variety of traditional planning techniques, such as population and enrolment projections, cost analysis, assessment of future labour market requirements, budget preparation, collecting reliable statistics and defining indicators in order to set up an efficiency-based management information system. They should also be greater consumers of research be it on the quality of the teaching/learning process, the transition from school to work or the impact of various strategies for improving learning outcomes.

What we are proposing here is in many respects more a prospective vision than a reality. However, this vision is likely to affect the trends and challenges for educational planning in the coming years.

On the eve of the twenty-first century, the field and scope of educational planning has become *elastic*. On the one hand, it has expanded, englobing nonformal education and issues of educational quality; on the other, it has become oriented toward very specific actions and programmes, in close contact with administration and management. Planning activities, far from disappearing, have actually developed everywhere in various agencies inside and outside the ministries of education. The challenge in terms of training and capacity building is enormous.

SECTION I

A New Agenda for the Educational Planner

Teaching/learning conditions in developing countries

Françoise Caillods and T. Neville Postlethwaite

Teaching/learning conditions

Many factors operate to produce pupil learning and achievement. The child's home background, the curriculum, the materials, the language used, the time devoted to instruction and homework, the work ethos of the school, the pupils' motivations, the teachers' perceptions of the ability of the class, their education and status, their behaviour and teaching practices all intervene in this network of influences.

Since teachers are a key element in the teaching/learning process and since they constitute in most developing countries the main, if not the only, agent of transmission of knowledge in schools, we shall start with some comments on teachers' level of qualifications, training, working conditions and teaching environment.

TEACHERS' LEVEL OF QUALIFICATION

No recent international statistics exist on teachers' level of qualification. It seems, however, that the number of years of education required from primary-school teachers varies a great deal from country to country and from continent to continent. In Latin America, most countries recruit their primary-school teachers after some years of teacher-training at a level equivalent to the end of secondary school. The tendency is increasingly to recruit teachers with some training after secondary education. In Africa and Asia, the situation is more variable, but primary-school teachers have often received some years of training after primary education only or have a lower-secondary-education qualification with or without teacher-training.

The proportion of teachers having received some training has increased but the situation remains bad in rural areas, where it is difficult to send qualified teachers (Unesco, 1986*a*). An extreme example of this phenomenon can be seen in Brazil. While unqualified teachers represented 25 per cent of the whole teaching force in first-level schools at the national level in 1982, they constituted 73 per cent of rural teachers. In municipal schools (basically rural) of north and north-east Brazil, nearly half of

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the teachers had not even completed first-level education (Brazil, 1985).

In certain countries the situation has deteriorated at secondary-education level where crash programmes of expansion have led ministries to recruit many untrained and insufficiently educated teachers.

There is, of course, debate on the extent to which teachers need to possess a lot of knowledge. Some argue that, provided the teacher has certain teaching skills, it is sufficient for him to know only marginally more than the pupils need to learn. Others maintain that all teachers should have a high level of general education and that secondary-school teachers should have a very good knowledge of the subject they are teaching. This is not always the case, however, and the level of knowledge of teachers in developing countries can sometimes be fairly low. Shukla (1974) tested teachers teaching science to 14-year-olds in India and found that their average achievement in science was lower than that of 14-year-old students in some European countries. In a number of countries, primarily in Africa, the problem is further complicated by the fact that teaching at primary and/or secondary level takes place in a language which is neither the teachers' nor the pupils' mother tongue. In the United Republic of Tanzania for example, English is introduced as a major subject in primary education and it becomes the medium of instruction at secondary level. Criper and Dodd noted in their study of the teaching and learning of English throughout the Tanzanian education system that 'most primary teachers do not approach the level of fluency and accuracy needed to teach even primary children' (Criper and Dodd, 1985, p. 14).

The United Republic of Tanzania is not the only country in that situation and similar comments can be heard in neighbouring countries and in French-speaking African countries. Generally speaking, the IEA has pointed out that, within countries, students having teachers with more years of post-secondary education perform better than those students having teachers with fewer years of post-secondary education. Thus in spite of some improvement in the educational level of teachers, much remains to be done to improve their level of general knowledge and to upgrade their qualifications both in primary and secondary education.

TEACHERS' WORKING CONDITIONS

Where the situation has improved most is in the area of pupil/teacher ratios. These ratios have decreased in developed and in developing countries and in primary and secondary education. Pupil/teacher ratios in first-level schools decreased from an average of 45 in 1970 to 42 in 1984 in Africa, from 33 to 29 in Asia during the same period and 35 to 28 in Latin America. Such average figures hide vast disparities between countries, between rural and urban areas and between schools. Eleven countries of Africa still had an average pupil/teacher ratio above 50 and six countries had an average ratio above 60 in 1985 (Unesco, 1987). In some urban areas the number of pupils per class is way above 70 or 80 while it is much lower in rural areas. In Benin, for example, the average pupil/teacher ratio decreased at national level from 43 on average in 1981 to 33 in 1985. The averages per district, however, vary from 18 in some rural district to 64 in the capital city (Benin, 1985). In Ouagadougou (Burkina Faso), the number of pupils per class in certain schools is higher than 120 pupils, while the national average is 62. This variation, which is not specific to Benin or Burkina Faso reflects to a great extent the diversity in population density. It reflects as well, on the one hand, a certain under-utilization of teachers in rural areas and thus a need for redeployment and, on the other, the lack of physical facilities in cities. Class sizes tend to be higher than pupil/teacher ratios. The effect of class size will be returned to later below.

If teacher-training and pupil/teacher ratios have improved, other negative factors have affected the teaching profession.

First of all, in many countries, and particularly in developing countries, teachers' salaries have declined in real terms. This phenomenon is not a recent one but it has accelerated in recent years due to the economic crisis and the consecutive budgetary cuts. Mexican teachers lost about 40 per cent of their purchasing power from 1979 to 1984, Peruvian teachers lost 35 per cent of theirs between 1974 and 1980 and Bolivian teachers 65 per cent between 1980 and 1985.[1] In the Philippines, the government has recently doubled teachers' salaries; none the less they remain below the official poverty line.

In Africa, Zaire, Sudan, Ghana and the United Republic of Tanzania are also cases in point. The salaries of teachers, like those of other government employees, have not been adjusted for inflation and have decreased substantially in real terms over the last five to fifteen years. In Tanzania salaries, for example, fixed in 1974 for teachers were not revised until 1981. In spite of promotions and increments, the vast majority of teachers in 1987 had a purchasing power of about 40 to 75 per cent of that of the lowest paid teacher in 1977 (Anderson and Rosengart, 1987). In Ghana, the purchasing power of the lower-level public service pay scale was, in 1984, only one-fifth of its value in 1977. In higher grades it was just 6 per cent. Even if such losses were mitigated by promotions, increments or other payments-in-kind, the effect on motivation has been very negative. In Zaire, real salaries in the civil service have lost 85 per cent of their purchasing power between 1975 and 1984. The ILO, in a 1987 report, notes, 'In some cases in Africa where real pay has fallen 50 per cent or more, the effects on standards of public administration have been devastating . . . Many observers have associated the large absolute and relative decline in public sector pay with the departure of the most productive employees, increased absenteeism, illicit practices, moonlighting both during and after regular working hours or simply low work effort' (ILO, 1987, p. 101).

Teachers are no different from other civil servants, and observers of the Latin American and African scene are well aware that teachers at all levels are becoming more concerned in some countries, probably rightly so, with making a living than with teaching.[2] Whenever possible, teachers take up a second or a third job. In some countries where the shift system operates it is quite common for teachers to teach one shift at one school and a second shift at another school. In urban areas, teachers open small businesses (e.g. taxis). In rural areas, they spend more time on their farming plots. Given their long working days they prepare their classes less and less, fail to correct homework or are simply absent. Quality definitely suffers. In the University, professors and lecturers take up consultancy work with private companies, and spend less time with their students and even less in research.

The situation is fortunately not as bad as this everywhere. But salaries have rarely kept up with inflation (even when they have been increased) and in more and more countries they are paid late. The effect on teachers' level of motivation is similarly negative.

The decline of the status of the teaching profession is connected with the relative decrease in salaries (but the decrease in salaries is not the only reason). Primary-school teachers no longer have the authority and prestige they had in the past. An indication of this lack of status is the fact that fewer and fewer graduates, particularly male graduates, want to enter the teaching profession at least at primary level. Teaching is more and more considered as a women's profession and the income received is considered as only a supplementary increase for the household. This decline in the status of the teaching profession affects both developed and developing countries and has become a matter of concern to education authorities in some industrialized countries such as France.

TEACHERS' ENVIRONMENT

To make matters even worse teachers often work in an unfavourable environment.

Teachers' guidance and supervision

Many untrained teachers have been recruited; many new graduates have been sent to rural areas assuming that they would receive attention, guidance and supervision from qualified heads and supervisors. No recent study exists at the international level either about the level of qualification of head teachers or about the frequency of supervision. Few countries, however, organize training programmes for school principals. In some cases, particularly in rural areas, their educational level is hardly higher than that of their teaching staff. The consequences can be serious not only for the orientation of young teachers but also for the running of the schools and the management of their budgets. A survey on a probability sample of Indian schools shows, for example, that heads of schools do not spend much time on supervision and guidance to teachers (Singhal, 1988).

As for supervision, it is a well-known fact that many supervisors rarely visit schools in the remote rural areas and the situation has become much worse, with the onset of the economic crisis resulting, in a number of African and Latin American countries, in a total lack of transport at their disposal. When supervisors do visit schools, they often limit their activities to routine administrative matters such as checking the collection of data and attendance sheets, and very rarely carry out their function of helping or encouraging teachers in their teaching duties.

This lack of guidance and supervision can become a real problem in countries that have a high proportion of one-teacher schools as, for example, Guatemala (54 per cent), Ecuador (85 per cent of rural schools) or Colombia. These teachers often have received no special training for this sort of teaching, and do not have enough teaching aids; they are therefore very isolated.

Teaching aids

Teachers increasingly do not have the necessary teaching aids at their disposal (blackboard, textbooks, 'library', i.e. stock of books available, science kits in secondary education, etc.). Schools and classrooms are not always adequate in terms of lighting, ventilation, furniture, sanitary facilities, available drinking water, and the like. Information is not systematically collected on these points at the national level. Hence, no comprehensive national or international statistics are available. Sparse evidence from surveys conducted in different countries show none the less that:

Teachers do not have handbooks in sufficient quantity for their own use. In the Kirundo district of Burundi for example, only 30 per cent of the teachers had all the books they needed for their teaching (IIEP, 1982*b*). There are not enough recent surveys to show the extent of the problem elsewhere but more and more reports on African countries as well as in some Asian and Latin American countries draw attention to the critical situation in this respect.

Schools are sometimes in a very bad condition and/or do not possess the minimum sanitary facilities. 42 per cent of the schools in the Kilosa district in the United Republic of Tanzania had no water available and 10 per cent had no latrines (IIEP, 1982*a*). Some 20 per cent of the schools in the Ed Dueim district in Sudan had no water and 57 per cent had no latrines (IIEP, 1983*a*). 80 per cent of schools in the Seti region of Nepal had leaking roofs, only 28 per cent had toilets and 20 per cent were in a state of collapse.

Blackboards are not available in every classroom. A probability sample of Indian schools shows that 40 to 44 per cent of primary schools do not have enough furniture for teachers, 61 per cent do not have enough blackboards (i.e. it being desirable to have one per classroom), 49 per cent do not have enough maps and charts and 49 per cent do not have any desks and chairs for students (Singhal, 1988).

Teachers' housing in rural areas is either not available or, when it is, in very insufficient quantity. The difficulty of finding housing contributes to the reluctance of qualified teachers to go to rural areas.

Many primary-school pupils have to sit on the floor. That is the case of 80 per cent of pupils in the district of Dhamar in Yemen (IIEP, 1979), 98 per cent of pupils in the Bilene district in Mozambique (IIEP, 1987), 56 per cent in Nyong Mfoumou Department in Cameroon, and 65 per cent in Lesotho's church primary schools.

Many other examples from African and Asian countries could be given. Although not all of these factors may have a direct influence on the quality of the teaching process, they do influence the degree of commitment and motivation of teachers and, therefore, have some bearing on the quality of education. The list of reforms which failed because the teachers did not support them or because they had not received the proper information (including textbooks and materials) is endless.

STUDENTS' TEXTBOOKS AND MATERIALS

Textbooks, exercise books, pupils' slates and chalk and pencils are in short supply in many countries. Some regional studies have outlined how critical the situation can be in certain countries.

In the Parish of St Thomas, Jamaica, 13 per cent of the pupils had neither pens nor pencils at the time of the survey; 42 per cent of primary-school pupils and 49 per cent of middle-school students had no textbooks (IIEP, 1983*b*). In the Kilosa district of the United Republic of Tanzania, pupils had no textbooks at all in 52 per cent of the schools and there was an insufficiency in 79 per cent of them (IIEP, 1982*a*). 70 per cent of the pupils at Kirundo, Burundi, did not have the required books either in French or in Kirundi (IIEP, 1982*b*). At Bilene, Mozambique, textbooks were available for less than 10 per cent of Grade 1 pupils and less than 50 per cent of Grade 3 pupils (IIEP, 1987). The situation tends to be slightly better in Latin America, with the exception of rural areas and shantytowns. 5 per cent of the primary-school pupils in Ibarra county, Ecuador, had no textbooks at all and 77 per cent of them only had all the books required (IIEP, 1981). In three states of North-East Brazil, 29 to 54 per cent of schools did not receive primers for all students in 1983 and 50 to 58 per cent of pupils did not use textbooks (Armitage et al., 1986).

Such equipment and materials are normally subsumed under the proportion of recurrent expenditure devoted to non-salary expenditure. This proportion has always been very low, particularly at primary-education level but it can also be relatively low at the secondary-education level. The expenditure on instructional materials per pupil in 1980 had been estimated at $1.68 in South-Asia, $2.24 in Sub-Saharan Africa, $2.47 in East Asia and $8.99 in Latin America (World Bank, 1986*a*). On average, developing countries spent $4.80 on instructional material per pupil annually, 22 times less than in developed countries. The per-pupil non-salary recurrent expenditures have an extremely large range over countries, from $0.11 in the Philippines to over $250 in Canada. Many developing countries spend under $4 per child on these items. Budgetary restrictions are resulting in a decrease in the state expenditure per pupil in non-salary items. Increasingly the responsibility for buying books and stationery is transferred to families. As the purchase of a small item of equipment can represent a significant investment for some families in rural areas and shantytowns, it is not surprising that the situation mentioned above should prevail.

The fact that pupils have rarely any opportunity to read or study from printed material has probably serious consequences for the development of literacy skills. What can pupils learn, seldom reading, listening to a teacher who is not necessarily well trained or motivated, and not always able to exercise or transcribe what they have heard because of lack of exercise books or slates?

Pupil retention and achievement

In this section of the article, an overview will be presented of some outcomes of the teaching/learning process at the level of the school. Two types of indicators are commonly available, namely indicators of internal efficiency: repetition rates and retention ratios and levels of achievement.

REPETITION (GRADE REPEATING)

The level of repetition is not a clear indication of pupils' learning achievement: certain countries, including French-speaking countries, traditionally have a high level of repetition while others encourage low repetition or automatic promotion. This reflects a divergence in the pedagogical philosophy more than a difference in pupils' cognitive achievements. Repetition ratios can also change fairly quickly when ministries of education issue instructions in this respect. It is therefore not possible to compare ratios between countries and care should be taken when making comparisons over time. It is nonetheless worrying to note the high percentages of repeaters in certain countries. Twenty-three countries in Africa, six in Latin America and three Asian or Arab states had a percentage of repeaters in primary education above 20 per cent in 1982/83. Thirteen countries in Africa had above 25 per cent. One out of every four pupils in these countries was considered as not having assimilated the programme in his/her grade sufficiently to be promoted to the next grade (Unesco, 1984). Even more preoccupying is the fact that this percentage shows no sign of declining. It has remained stable on average in Asia and Latin America[3] and seems to have increased in quite a large number of African countries. Care must be taken when drawing conclusions but the figures seem to indicate a certain deterioration in the level of outcome of pupils in African countries.

RETENTION RATIOS

How many children progress through the various grade levels in school is a function of many variables. Among these are: (a) the proximity of schools and the availability of places within schools; (b) the degree of motivation of parents to send their children to school; (c) their ability to pay for schooling where payment is required and to forgo the work or the income that children could have produced while staying at home; (d) the aspirations of pupils themselves; and (e) their employment prospects and their level of achievement. High wastage rates cannot be blamed only on the school, far from it, but it has been shown several times that low pupil-achievement, irrelevant curricula, and the negative attitudes of teachers, tend to discourage parents from sending their children to school. Thus, low retention rates and high drop-out can be taken as an indication of the inefficiency of the school system.

Weighted averages of survival rates by region computed by Unesco show that the proportion of children in primary education around 1982/83 who reach Grade 4, is low: 64 per cent in Latin America, 71 per cent in Africa (23 per cent in Portuguese-speaking countries), 85 per cent in Asia and Oceania as compared with 92 per cent in Europe (Unesco, 1986*b*). Retention rates had on average increased in all regions between 1970 and 1980 which is encouraging. Individual country data however remains worrying. Retention ratios have declined in twelve African and Arab countries, sometimes very sharply between 1980 and 1983 (Togo, Benin).[4] In Nepal, Bhutan and Bangladesh, about half of all pupils drop out at the end of the first grade and only 35 per cent of entrants complete a three-year cycle (Unesco, 1984). In Latin America the difference between urban and rural areas is great. In Colombia only 18 per cent of pupils in rural areas reach Grade 5 compared with 62 per cent in urban areas (Colombia, 1985). In Guatemala 10.4 per cent of new intakes in rural areas reach Grade 6 compared with 42.5 per cent in urban areas.

Various studies have shown that those who drop out of school early have a good chance of relapsing into illiteracy, mainly because they had never attained a functional level of literacy while in school in the first place (Hartley and Swanson, 1986).

ACHIEVEMENT

It is one thing to enrol and keep children in school; what they learn is another matter. All school systems aim to ensure that the children enrolled acquire at least basic literacy and numeracy. Those who proceed to secondary school are expected to acquire higher levels of knowledge in mathematics and science, foreign languages, literature and social studies (history, geography, etc.). It is important to be able to measure how much they learn and how their levels of achievement compare from country to country.

One difficulty of commenting on achievement outcomes is that there is a paucity of hard evidence. It is difficult enough to find data on achievement of pupils in developing countries for one year. It is quite impossible to find time-series data which would provide evidence on whether standards have really fallen, been maintained or improved. Examination results are hard to use because they rarely produce evidence on what children can or cannot do. Examinations tend to be norm referenced and the norms change from year to year, in some cases according to the number of places available in the following level. The cut-off points for the allocation of those passing and failing, or those receiving an A, B, C or D mark, depends on the distribution of scores so that a certain percentage, say, 60 per cent will pass the examination this year. In such cases, no comparisons over time are possible. Criterion-referenced measurement on the other hand (showing which objectives have been attained and which have not been attained) is rare in developing countries and when it exists it is usually available for one specific year only.

There is, however, some evidence that cognitive achievements in many, but not all, developing countries are low and, in general, the achievement is lower than that observed in developed countries.

Recently, an unpublished study for the Planning Institute of Jamaica showed that in primary schools in Jamaica 35 per cent of pupils were reading at below-grade level. Of these 35 per cent nearly two-thirds were non-readers (i.e. not able to read). In a sub-study of these data in some schools it was shown that 25 per cent read haltingly and 14 per cent were unable to read. In the United Republic of Tanzania, Criper and Dodd found that two-thirds of pupils in the last grade of primary education were unable to read and understand any text in English. In spite of five years of learning English in school, 95 per cent of primary-school children had not started to master this language. By the second term of Form 1 secondary, where pupils are supposed to be taught in English, 60 per cent of pupils are still at the level where they can only read 500-word picture books; 'there is no way that such pupils could follow instruction in other subjects through English' (Criper and Dodd, 1984, p. 14).

The International Association for the Evaluation of Educational Achievement is beginning a study of reading literacy at the end of 1988. Some 46 countries will participate and more than half of them are developing countries. One of the aspects of reading to be examined will be basic literacy skills (sometimes called literacy survival skills) and these will include criterion- as well as norm-referenced measures. The study will concentrate on 9-year-olds and 14-year-olds, but countries will be able to assess other age groups should they wish to do so. The IEA will also undertake analyses to identify those factors 'causing' differences between countries' levels of achievement as well as between schools and pupils within countries. The search, in particular, will be for 'alterable variables, that is, those variables which can be changed by ministries of education. The insufficient level in reading and writing is becoming a matter of serious concern for governments, parents, educators and employers in all countries. Hence, the attempt to discover how it can be improved.

Care should be always taken when comparing achievements between countries. First, curricula might differ; second, the socio-economic environment and the cultural context of the pupils are generally different; and, third, the set of values, attitudes and commitments that the society and schools may want to encourage can also be different. School systems are none the less assigned increasingly similar objectives *vis-à-vis* such basic-skill subjects as science, mathematics and reading comprehension. Thus, without emphasizing the notion of an international educational standard, it is useful for countries to know how much their pupils achieve and how these achievements compare with other countries, developed or developing.

Using the data from IEA and other surveys in twenty-five countries, Heyneman and Loxley (1983, p. 1173) concluded that 'schoolchildren in low- and middle-income countries have learned less science after the same, or approximately the same, length of time in school as wealthy countries. In the United States the average mean is 32.8, in Japan 40.9. . . . However in India it is 20.6, in Colombia 24.0 and in Thailand 28.2' (see Fig. 1).

In an IEA mathematics study in 1981, 13-year-olds in the OECD countries scored an average of 52.9 per cent (i.e. 52.9 per cent of the items were correct) and the same age group in Nigeria and Swaziland scored an average of 34.5 per cent. The overall standard deviation was 11.2. It looks as though there is a gap in the mathematics achievement of 13-year-olds of some three to four years between OECD countries and the two African countries (Robitaille and Garden, in press).

A similar study on science achievement was undertaken in the period 1984–86 in which five developing countries participated together with developed ones (Fig. 2). The 14-year-olds in the OECD countries scored 60 per cent on a thirty-item test, while Ghana, Nigeria, Zimbabwe and the Philippines scored 46, 41, 41 and 38 per cent respectively. On the other hand, China (Grade 9) and Papua New Guinea (Grade 10) scored 59 and 55 per cent respectively. (The Chinese sample did not include all of China but only the three large provinces round Beijing.) It should be stressed that the intended curricula in science (i.e. what the pupils were meant to learn) were very similar in all the countries covered (IEA, 1988). In

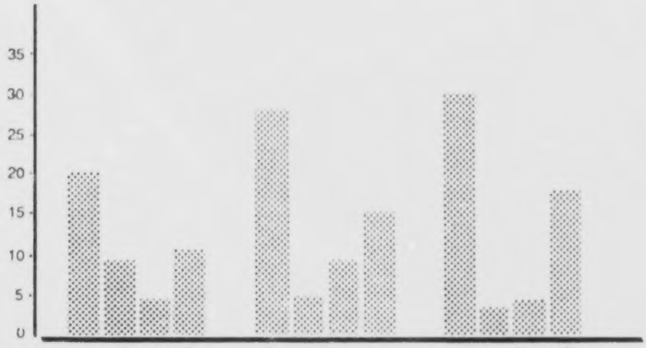

FIG. 1. Reading comprehension at three levels of education, 1970

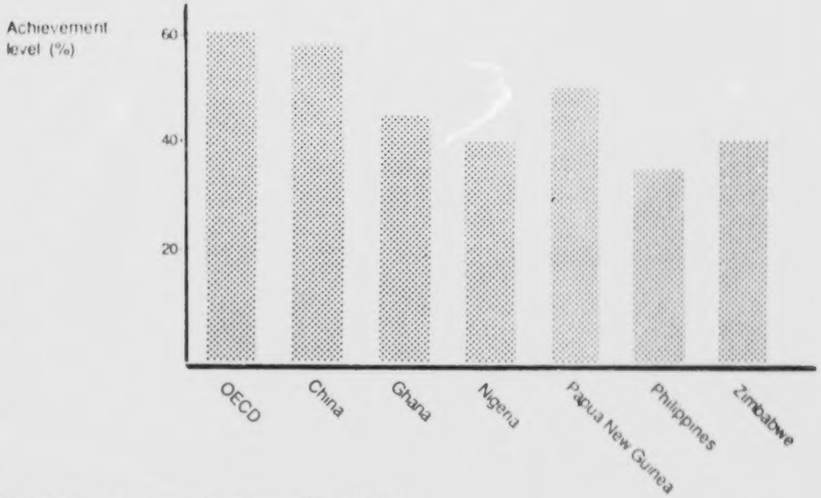

FIG. 2. Science achievement of 14/15-year-olds, 1984-86.

fact, all countries underlined that the test was fair for their pupils and that comparison with other countries' achievement was legitimate.

It will be noted that the achievement differences in science are less than in reading and mathematics. Thus, in order to measure the achievement of a school system, it would be desirable to test in various subject areas at the same time and to plot the profiles of achievement of all countries and subject-matters in a common scale. To describe the achievement in one subject-matter only can be misleading since it could occur that a country which has high performance in one subject area may have low performance in another.

It is not sufficient when evaluating the quality of the teaching/learning process to limit ourselves to the end-product of a system. We have to take into account its capacity to impart knowledge to all students who enter or should enter the system, as in theory, it is easier to attain high levels of achievement when only a highly selected group enter, say, secondary education. Thus, before leaving the sparse information on achievement two further concepts are introduced: 'achievement yield' and 'equality of educational opportunity'.

ACHIEVEMENT YIELD

Consider Figure 3 below. Four yield curves are presented: for Japan, the Philippines, Thailand and the United States. The test is an internationally constructed science test said to be equally fair to each of the countries. It has thirty items shown on the horizontal axis. On the vertical axis appears the proportion of the pupil enrolment and of the age group who get one, two, and up to thirty, items right.

Some systems have 100 per cent, or nearly 100 per cent, of an age-group in school (Japan and the United States). For the Philippines and Thailand a distinction is made between those in school (all those in school counted as 100 per cent) and the proportion of the age group actually enrolled (in the case of the Philippines 60 per cent and in the case of Thailand 32 per cent). The area under the curve represents the percentage getting one item right, the per-

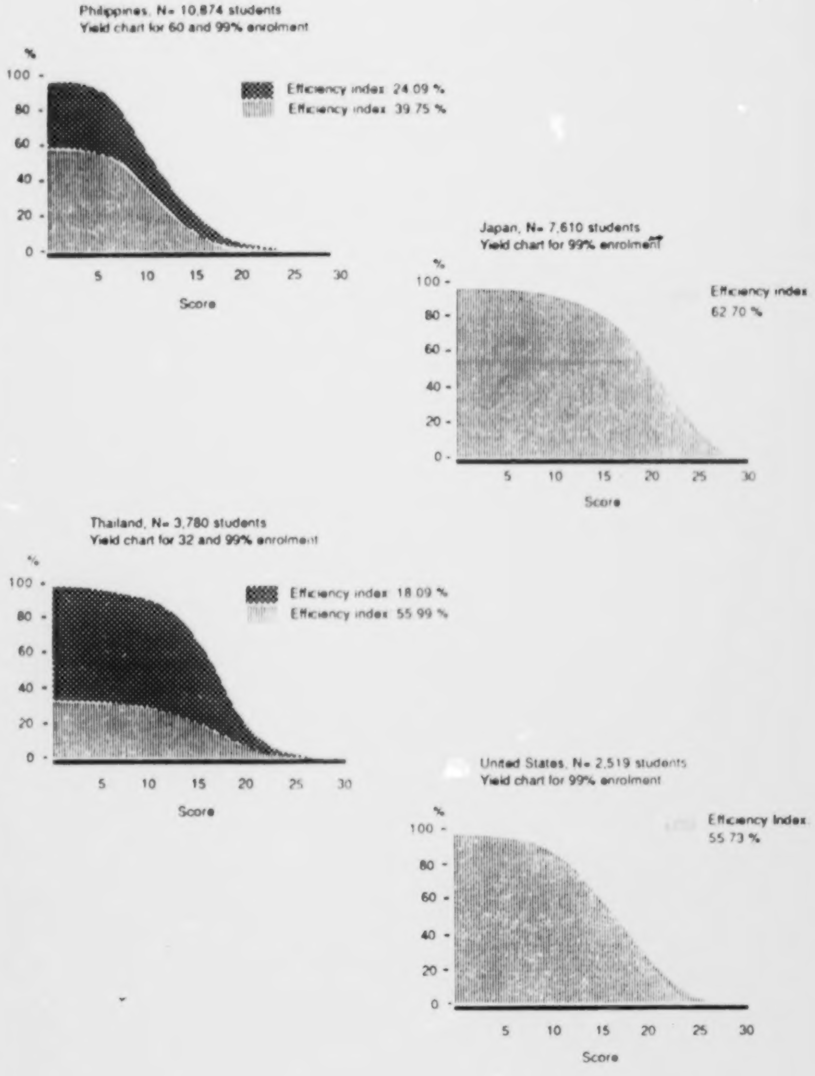

FIG. 3. Yield curves of four countries (Grade 9, science).

centage getting two items right, etc. (an inverted cumulative frequency distribution). If all pupils answered all items correctly the whole rectangle would be filled. The proportion under the curve (how many achieve how much) can be calculated as a percentage of the total. This is reported in the rectangle as the efficiency index of the school system, on the assumption that an efficient system where every pupil correctly answers all questions would have an index of 100 per cent. It can be seen that, on the basis of pupils in school, Thailand and the United States have very similar indices (55.99 and 55.73 per cent respectively). When the fact is taken into account however that only 32 per cent of an age-group is in school in Thailand, the index declines to 18.09 per cent: the yield is much lower. (This assumes that those not in school would have scored zero, which is obviously not true, but since those not in school were not tested it is impossible to make an estimate of what they do know.) The comparison of 'achievement yield' indices does then allow a comparison of how many learn how much. In the case of Thailand it could be an argument for increasing the proportion of an age-group in lower secondary school and it is perhaps not surprising that the Thai authorities have now taken steps to increase the proportion of an age-group to about 50 per cent.

The Philippines, on the other hand, has 60 per cent of an age-group in school at Grade 9 level, but it is clear that more emphasis is needed in that country on improving the quality of education at that level before expanding enrolment. Japan's yield curves are presented simply to give an idea of what is possible in a relatively high achieving country.

EQUALITY OF EDUCATIONAL OPPORTUNITY

In any system of education there are achievement differences between schools and there are achievement differences between pupils. The question arises as to what extent the differences between schools account for the total differences between pupils. In some school systems there will be little difference between schools and most of the variation in achievement will be between pupils within schools. In other cases, the variation will be mostly between schools with relatively small differences between pupils within schools. An index known as ROH can be calculated which describes the between- to within-school variation in achievement. In Scandinavian countries the between-school variance accounts for as little as 2 per cent of pupil variance and is always less than 10 per cent. To take Sweden as an example this means that it makes very little difference in terms of achievement which school a pupil goes to. This is not the case, however, in many developing countries where the between-school differences can account for 30 per cent of the pupil differences at Grade 6, 50 per cent at Grade 9 and 60 or 70 per cent at Grade 12. It makes, therefore, a great deal of difference which school a child attends.

In some cases these between-school differences are associated with urban-rural differences. In many cases, also, it can have to do with teacher qualification and motivation, and with availability of resources. If children are to be given equal opportunities it is crucial that countries with large differences between schools undertake regular surveys to identify the differences in teachers and resources and try to redress the balance through differential allocation of resources.

This section has cited results from some studies of national achievement in different countries. There are other examples of national surveys of achievement (the sixth, ninth and twelfth grade surveys of achievement in Indonesia, the primary-school survey in Malaysia, the secondary-school survey in Thailand) but studies, so far, have focused more on factors affecting outcomes rather than on measurements of actual levels of achievement. This evidence is still sparse, especially in African countries. The World Bank policy study on Education in Sub-Saharan Africa cites some quite distressing results from a test administered to fifth-grade students in one Francophone African country: 'Students in primary education in this country are learning virtually no mathematics' (World Bank, 1988, p. 33). Many more surveys need to be undertaken by countries and reported. They have two major useful outcomes. They identify which objectives in the curriculum are being poorly achieved and which factors are associated with differences between provinces or regions, differences between schools and differences between pupils. These studies should be undertaken and carried out locally and their results should become part of the information policy-makers and planners should have at their disposal.

Factors affecting pupil achievement

What do we learn from studies examining the effects of certain factors or variables on achievement? This section attempts an overview of some of their major findings. The disentanglement of the effects of variables on achievement is not an easy matter. The results of correlational research need to be tried out in experiments. Any one result needs to have occurred several times before we can be sure of our ground. Hence, the use of meta-analyses—analyses of analyses. From various World Bank and IEA analyses a number of 'alterable' variables (those which can be changed by Ministries of Education) can be identified.

Before presenting them, one word of caution is in order. The meta-analyses mentioned above, which make it possible to identify patterns of relationship across societies, do not by definition take into account structural and cultural determinants of variations in achievement. Before defining the policy for one specific country, it would be useful to have at hand the results of a survey carried out there. Moreover, quantitative macro-level studies should, whenever possible, be complemented by other more qualitative-type research. These, based on observational methods and interview techniques, allow the researcher to pick up nuances and identify variables operating in classrooms and influencing achievement, which cannot be otherwise identified.

The following alterable variables have been selected for presentation.

CURRICULUM

The curriculum can be differentiated into 'intended curriculum' (what is in the syllabus or lists of learning objectives), 'implemented curriculum' (what the teachers actually teach; in research jargon this is often known as OTL, or opportunity to learn), and 'achieved curriculum' (what the children actually learn). There is much evidence to show that the curriculum demand has an impact on achievement. In other words, if pupils get the opportunity to learn something they usually do so; if they do not get the opportunity they cannot learn it. In short, the more that is demanded in the 'intended' curriculum, other things being equal, the more the children will learn.

Many developing nations have curriculum development centres. Although many curricula have been made 'national' to remove the influence of the ex-colonial power's curriculum, it is the case that either certain other nations' curriculum programmes are used (e.g. Nuffield Science) or at the other end of the spectrum, not sufficient attention is paid to what other nations demand of their children, particularly in reading, maths and science. The African Curriculum Organization and organizations such as SEPA (Science Education Programme for Africa, based in Ghana) have done much to try and improve curricula, but much yet remains to be done.

There is a technology of curriculum development (Lewy, 1978) and there are certain determinants of the curriculum which must be taken into account. Many require small studies. Curriculum centres must pay attention to these determinants.

There has been a tendency to add more and more to the curriculum but never to discard anything. Lately, there have been moves to trim back the curriculum as though it were the cause of poor standards. The curriculum should be trimmed, but with care. Attention should be paid that at a minimum the school teaches what school-leavers will need to start work. Students should also have the basis to be able to continue to learn and grasp quickly the content of whatever training they might follow upon leaving school or later on.

Various programmes have been tried out, combining education and productive work, or introducing pre-vocational subjects into the curriculum. The evaluation of such programmes seems disappointing so far as solving the unemployment problem, encouraging self-employment of school-leavers or raising resources are concerned (Psacharopoulos and Loxley, 1985; Lauglo, 1985). Some studies suggest, in fact, that what is potentially most useful to self-employed adults in urban or rural areas are literacy and computational skills, agricultural and/or some scientific knowledge. Pedagogically some of these vocationalized programmes seem none the less to have had interesting results, so long as teachers were very motivated and knew how to integrate the teaching of practical subjects with the teaching of more theoretical ones making the former supportive of the latter. Their success, in fact, depends a great deal on the resources available. This is often the case; curricula are often accused of being the cause of bad achievements. Causation is however usually multi-faceted, and poor teacher knowledge is clearly a problem in some countries as to why the curriculum is failing.

The language of instruction and the language in which the instructional materials are written is a further problem. After independence, Nigeria, for example, adopted English as the language of instruction in school starting at Grade 1. A child in the Yoruba-speaking area will learn his local language first, then Yoruba, and then enter school to be instructed in English (somewhat akin to an English child entering Grade 1 and being taught in Japanese). There have been studies in the Yoruba- and Hausa-speaking areas of Nigeria where it has been shown that children learn more when being instructed in Yoruba and Hausa than when being instructed in English. But, to change or rewrite all instructional materials into Yoruba or Hausa would be a costly undertaking. It could also become a political issue, as some groups may resent the use of the language of another group. Thus, this problem remains in many countries.

Finally, national examinations should reflect what is in the curriculum because teachers teach according to what is in examinations. In all the activities the curriculum centre should play a crucial role.

BOOKS AND MATERIALS

Where there is a shortage of books and materials, achievement is lower. Providing one book per child (and ensuring that the books reach the schools and are used by teachers and pupils) increases achievement and retention rates. Indeed, in the Philippines when the number of books provided to primary-school classrooms changed from ten pupils to one book to two pupils to a book, the proportion of students achieving at 'grade level' rose from 50 to 70 per cent in one year (World Bank, 1986*b*).

Fuller (1986) indicated that a shortage of textbooks was more of a problem in some subject areas than in others; but it always has an effect on achievement. The major problems are how to produce sufficient textbooks (or even loose-leaf files) cheaply and, at the same time, to ensure that the materials reach the pupils in the schools, particularly in rural areas. Studies on textbook distribution in Nigeria and Indonesia have pointed to the types of problems which occur, and remedial action has now been undertaken. Again, it is not enough to print textbooks, we have to make sure that the materials actually reach the schools—which is an administrative problem—and that they are used by teachers—a pedagogical and administrative problem.

Connected with instructional materials is the availability of books through a school library. Both Fuller and IEA have reported that the more books are borrowed from a school library the higher the pupil achievement and, in primary schools, the more a classroom corner collection of books is available the higher the reading achievement.

TEACHERS, TEACHING AND TEACHER-TRAINING

There has been much research on methods of teaching and what it is that teachers do which improves learning and achievement.

Teachers' experience

Teachers with more teaching experience tend to develop stronger instructional and classroom-management skills. They reduce the amount of time spent on administrative procedural matters in the classroom, are quick at restoring order and develop a tempo of teaching which fosters more 'time on tasks' on the part of the students (Anderson et al., 1988). The implication of this is that all efforts need to be made to allocate experienced teachers equally between urban, peri-urban and rural areas and to reduce turnover. This is linked to the question of salaries and status raised earlier.

Lesson preparation and marking

Teachers who spend time preparing lessons and marking homework and classwork tend to achieve better results with their students than those who do not. If teachers do not have to work to earn extra money and if teacher-training stresses this point, then this should help improve learning.

Skills

Teachers who are perceived by their pupils to demand a lot of them (high teacher expectation of pupil work), who are quick in keeping order in their classrooms, who organize feedback in a systematic way (feedback in the sense that the teacher, and pupil, knows exactly what an individual pupil has learned and has not learned, of that which was to be learned), who use correctives (help children to learn that which they failed to learn the first time), and who help the pupils to structure the more important learning tasks from the less important tasks, tend to produce higher achievement in their pupils than those teachers who are not perceived to do these things (Anderson et al., 1988; Nitsaisook and Postlethwaite, 1987).

Some dedicated teachers are able to inspire children to learn in the most deprived areas. Avalos (1986), in her study in four Latin American countries, has called these the 'Señora Rosa' teachers. More intensive studies of these kinds of teachers are required in order to identify exactly what they do which results in good achievement in disadvantaged children.

Teacher education

General education. IEA (Peaker, 1976) has shown that teachers with more post-secondary education achieve more with their pupils than teachers with less post-secondary education. Such a finding, however, gives little solace to the educational authorities in countries with falling educational budgets and growing enrolments where one-year crash courses have to be organized for pupils finishing junior or senior high school so that they can start teaching in secondary schools.

Pedagogical training. Passow et al. (1976) found no difference in pupil achievement according to the different length of teachers' pedagogical training. This result points to the problem of the content of pedagogical training. Which teacher activities are required for the teaching/learning of different types of educational objectives in different subject areas? Some results about teaching practices which result in more learning on the part of pupils were given above. It is from such studies that the content of the pedagogical part of teacher training should be derived. The amount of time devoted to pedagogical training can be pared down but only on condition that there is a strict selection of that which is essential.

In-service training is typically of two types: a week's course, or what is called 'on-service' training. In the latter, the teachers teach during the week but meet one evening per week (or on a half-day at the week-end) with other teachers from neighbouring schools (a cluster of schools) at a teacher centre (often a room in a school). They meet not only with each other to discuss common problems but also with a supervisor or a master teacher. It is often said that the first type of course (in-service teacher training) is worth only twice its own length. That is to say that if it is a one week course the teachers revert to how they taught before the course two weeks after having returned to their school. Flügger (n.d.) has produced initial results showing that on-service training courses produce longer term effects on changes in teacher activities (and cognitive learning) than do in-service teacher-training courses. Again, however, more research of this kind is needed before general conclusions can be drawn.

There are some countries where in/on-service teacher-training is not compulsory. The IEA results indicate that where teachers have undergone in/on-service teacher-training and where such training has involved practical activities (e.g. producing instructional materials, constructing assessment instruments) the pupils learn more than under teachers who have had no such in/on-service training or under teachers who have been to in-service courses of a theoretical nature only.

Many countries have a set number of school days per year but let the pupils off while the teachers undergo in-service training as part of their regular duties, i.e. without extra pay. Other countries, on the other hand, pay their teachers an honorarium for attending in-service training over and above their travel and subsistence costs. This can be an expensive precedent.

The suggestion is that in/on-service training should be compulsory without extra payment to teachers, that the courses be given a practical bent and that more emphasis should be placed on on-service training.

TIME AT SCHOOL AND HOMEWORK

Allocated instructional time is important. In general, the more time children study, other things being equal, the more they will learn. The number of school days per year ranges from 120 to 240. The number of instructional hours per day ranges from two to seven. The age of entry to school varies from 4 to 7 (or even more) years of age. Hence, even for those children remaining in school up to say 14 years of age, the difference in instructional hours can range from 4,000 to 10,000 (Passow et al., 1976).

It is the real number (rather than the paper number) of hours of instructional time that is important. There are many countries where officially there may be, say, 240 school days per year, but in effect 30 are given free because of local public holidays, visiting dignitaries, and teachers' absence (for whatever cause, illness, death or marriage in the family, attending courses, etc.); thus the real number of days is much less (210 in this case). Teachers' attendance at school is another important problem. In some countries measures have to be taken (involving, for example, the community or the parents in the management of the school) so that teachers actually turn up in schools for the lessons they have to teach.

The cumulative number of hours of a subject studied is the important factor, that is, how many hours per week for how many years, but again there must be a point at which a plateau begins. More information is needed here. Carroll (1975) suggested that for a pupil to become proficient in reading comprehension in French as a foreign language, an average of six years' continuous study (i.e., four or five periods a week) for about 40 weeks a year would be needed. If the motivation of the pupils were very high and the teaching very good, the six years could be reduced to four, but not less than that.

Another aspect of time is 'time-on-task', that is, the amount of time within a class period that is actually devoted to teaching/learning which should take place and the amount of time each pupil actually spends on learning (as opposed to, for example, day-dreaming). There is a growing body of research to indicate that, other things being equal, the more 'time-on-task' the more the pupils learn. The structuring of the time within the period and the tempo at which the teacher conducts the class affect actual concentration. Both of these aspects should be dealt with in the teacher's pre-, in- and on-service training.

Finally, homework is important. Pupils who do homework learn more than those who do no homework even if it is not marked. If the homework is marked and gone through individually with each pupil, to help pupils to see their shortcomings and how to improve them, then the children learn much more. It goes without saying that if teachers are not motivated or if they have other activities, the probability of the homework being marked is low.

SCHOOL ORGANIZATION AND FACILITIES

School size. No significant differences in pupil achievement have been found in terms of school size (Fuller, 1986; IEA, 1988). Where population density allows it, it should be possible to increase school size but on condition that school principals receive appropriate training.

Class size. In general, students in smaller classes do not achieve more than students in larger classes except in classes of fewer than 15 students in which the teachers individualize the work. Again, in general, achievement tends to be less in classes over 45 in industrialized countries and over 55 in developing countries. But in between-country comparisons (IEA, 1988), the Republic of Korea with an average of 60 students per class, and Japan with 42 students per class, were equal first in a comparison of Grade 5 students in fifteen countries. Hence it is not the class size *per se* that is important. It is what happens in the class and how it is organized that is important. Nothing is known of the achievement of class sizes greater than 60, but it could be envisaged to have this number as a maximum size, always of course on condition that the classrooms are big enough for 60 and that the teacher knows how to teach in these conditions.

One problem that exists is that teachers within a country are normally trained to cope with classes of what is perceived to be an average class size within that country. It is important to recognize that if class size is increased then the teachers must be taught how to manage (and arrange the teaching) for larger-sized classes.

Double and treble shifts. Double or treble shift systems help to increase enrolment with no extra capital cost. The pupils' level of achievement does not seem to be impaired on condition that, whichever shift the pupil is attending, it is always the teacher's first shift.

However, many teachers do teach two shifts (often in two different schools) in order to earn extra money and most parents prefer their children to go to the first shift when it is cooler and their children are fresher. At the same time, though several countries have moved from a one-shift to two- or three-shift system, it does not seem to have affected their results too much. It would be very useful to have information accumulated on the pros and cons of different shift systems.

URBAN OR RURAL SCHOOLS AND STAFFING

In many countries there are large urban-rural differences in educational achievement. Occasionally these are in favour of rural areas with large urban slum areas performing poorly but, for the most part, the rural areas perform worse than urban areas.

Two points deserve mentioning. The unequal allocation of resources to the different schools has effects on achievement (see the point made about ROH on page 179 above). It is a relatively simple matter when undertaking the collection of school census data to have a count of the number of desks and chairs per pupil, the number of usable blackboards per classroom, the number of classrooms with mud, bamboo, wood or cement floors, the lighting per classroom, the classroom practical science equipment (or even in richer countries the laboratory space and usage per pupil) and so on. Where this kind of basic information is lacking at the district, regional and national levels it is imperative that it is collected, at least once every five years. If school census data are not collected then surveys using a probability sample of schools could be undertaken. The data should be analysed and remedial action should be taken to make school provision more equitable. Communities could be asked to contribute, but so should aid agencies as well. There is much to be learnt from India's national policy on education and 'operation blackboard': essential facilities such as two reasonably large rooms, blackboards, maps, charts and other learning material will be provided to all primary schools.

There are special problems experienced by schools in isolated areas. One is that the schools must be small and often with only three teachers (sometimes one teacher only) teaching six grades at primary level. Teachers should be trained to teach in these conditions. This is rarely the case in developing countries and much is to be learned from the experience of developed countries. A second problem is how to attract good teachers to rural (often isolated) schools and keep them there (see Chivore, 1988). The unwillingness of trained teachers to go to and remain in rural areas is well known. The quality of teachers going to rural schools is often associated with differences in achievement. Monetary reward and free housing systems can be expensive and are not always sufficient. In a recent IIEP training course (1987/88) the Thai participant recounted a Thai strategy: send only young male teachers for two years, followed by young female teachers for two years. Then, they marry a local and stay there. The system, she reported, worked well.

The role of the school principal is crucial. Fuller (1986) has indicated that the role of the school principal is often conditioned by the school type (academic, vocational) and the culture attached to it. The school climate also depends a great deal on what is demanded by them. The formal training of school principals, once they have been selected, has positive effects on the way they run the school and should be undertaken, probably as part of in- or on-service training. The cost of such on-service training is negligible except for the team working out what the content of such courses should be and the preparation of the necessary materials. This content should, of course, be worked out nationally and great care should be exercised when examining what the content of such courses is in other, especially industrialized, countries.

In areas where many parents are either illiterate or semi-literate, school principals can institute programmes of teacher-parent workshops in which the school inculcates in the parents various behaviours such as asking their children to read to them, or tell the parents what they have just read about. Such programmes can have dramatic effects on the reading achievement of second- and third-grade pupils classified as poor readers (Sawadisevee et al., 1982). Many initiatives have taken place which would be worth recording and summarizing. In all of these initiatives the school principals' roles have been important.

DISTANCE EDUCATION

When a distance-education programme using radio or correspondence as supplemental to classroom instruction is well developed and implemented it can have an effect in increasing achievement (McAnany et al., 1982).

The initial production of curriculum and classroom lessons is costly. The delivery to pupils can be efficient in terms of costs per pupil. However, as McAnany et al. (1982) emphasize, it is important that each component be tested out and, where necessary, revised before the programme is implemented. When the exercise is undertaken too quickly and without proper trialling, no effects on achievement can be seen and the initial production costs will have been wasted.

I would like to comment that there are many

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factors which influence learning and more research has been undertaken than we have been able to recount here. As research progresses it is important to be able to synthesize from research what we know about the effects of different factors. It is important to have information on which factors have a positive influence, which have no influence, and which have a negative one.[8] There is much mythology in education about the influence of different factors. In addition, it is essential that each nation has a mechanism for judging the 'health' of its educational enterprise and for planning purposes.

Parents and teachers need information on how Johnny or Mary, Amina or Mohammed, are performing in various aspects of each subject area in order to know where more effort is required for each pupil. The school principal needs to know about the relative strengths and weaknesses of each class in the school (and about sex differences) as well as how his/her school's performance at any one grade level compares with other similar schools. The principal must plan the overall activities in the school and must have this information to plan the following year's activities. The district or provincial officer needs information on how each school is performing, on urban-rural differences and the like, to know where extra resource inputs will be useful. The national planning office needs to have information on the relative performance of the different districts and provinces in the country and information on what factors (location, plant, books and equipment, teacher education, teaching quality, school principal management, etc.) are associated with achievement differences in various subject areas between locations and schools. The planning office also needs to know how well school learners integrate into society, how easily they find work and what are their contributions to the economic and social development. These considerations, however, go beyond the scope of this article.

It is possible (Ross and Postlethwaite, 1988) to collect such data and provide them to the various levels of decision-makers through regular monitoring exercises. Where systems of education do not have information on such basic facts as the number of children per school/class, number of classrooms, book provision, desk provision and the like, it is easy to collect such data in the course of such monitoring exercises.

Where there are large differences in provision and practices from school to school, or district to district, it is possible to assess the effect of these differences on outcomes of schooling such as achievement, attitudes, and skills. This is the type of information required by planners for their planning. At the same time, it is useful for systems to have comparative international data on their national achievement levels in order to see the magnitude of differences with other countries (especially with countries of similar economic standing) and how the magnitude of differences within their own compares with the magnitude of differences in other countries.

Without regular monitoring, it is impossible to know the 'health' of the system. A monitoring unit will typically cost 0.5 per cent of the primary and secondary school budget.

Tentative conclusions

Schooling will not necessarily be improved by manipulating a few qualitative variables only. In some instances, the improvement of the teaching/learning process may require rethinking of the very purpose, organization and length of schooling. In addition, many variables outside the school system influence pupils' achievement. These include, for example, the children's nutrition level, parents' attitudes, and their educational level, as well as the way they interact with the school. Bearing in mind, none the less, the poor state of the teaching/learning conditions in many countries and bearing in mind the financial constraints what suggestions might be made which are realistic? There are cases where a piecemeal approach modifying, not one single variable in isolation, but a whole mix of variables can be useful. Opinions will differ since the interpretation of results is a function of the memory, testimony, and introspection of the interpreter. What follows should be seen as suggestions to improve the teaching/learning process within the school. They are made in a provocative way and need to be discussed.

Larger classes. The suggestion is that class size could be increased to fifty on condition that the teachers be trained to deal with larger class sizes and on condition that there is little variation in the country around the average class size adopted. This size will lower the cost per pupil and allow more children into school. It is recognized that the feasibility of this measure depends on the population density; where population density is low, smaller class size will have to be defined. Also, where school classrooms have been built to hold only thirty or forty this will be a problem.

In urban areas it is possible to increase school size (probably up to 2,000) without detrimental effects on achievement but, again, on condition that school principals and teachers are trained for the management of larger schools. Maintenance expenditures will increase, but, nonetheless, such a measure should reduce per pupil costs (recurrent and capital).

Desks, blackboards, instructional materials. Attempts must be made to ensure that a desk place for each pupil exists, that each classroom has a usable blackboard (i.e. not so worn or shiny that the pupils cannot read from it) and that each pupil, or groups of two pupils, have instructional materials (textbooks, workbooks, loose-folders) when working. There is sufficient evidence to show that these are essential prerequisites for learning. No matter how good the teachers are, they will have a limited effect without these prerequisites. If class and school sizes are increased, the saving on the per pupil cost could go to providing these prerequisites. The industrialized world could be challenged to identify cheaper ways of printing instructional materials. But preferably, developing countries should get together and co-operate on the preparation of teaching materials to be produced locally.

Remotivation of teachers. Many teachers are demotivated, poor, and have low status in their communities. Action needs to be taken to remotivate them. It is obvious that whatever effort is put into other items, distribution of textbooks, blackboards, curriculum reforms, they won't any have impact if the teachers are not co-operating, or if they are absent. Governments can initiate propaganda systems to enhance the status of teachers as key persons for teaching children. Teachers can be asked to play other roles in the community. Their self-concepts can be raised through teacher training. Something has to be done with respect to their salaries as well. Where salaries in real terms have decreased so sharply that no teacher can hope to survive on his/her salary only, corrective measures have to be taken. In as much as possible, pay differentials *vis-à-vis* other groups in the community should be kept.

All measures aiming at organizing teachers in a team or in a community, such as clusters of schools, should be encouraged. Innovation is normally the fruit of a co-operative effort. This is linked with the training and functions of the school principal.

Teacher training. Although more pre-service training would be desirable as seen from some of the evidence put forward in this article, it is beyond the financial resources of many countries to undertake.

Compulsory in- and on-service training is desirable. It can be organized so that it does not cost more than at present. It is the content which should be changed to take into account some of the facets of teaching already mentioned for which there is evidence that they are effective in improving learning and achievement. It is through good in- and on-service training that teachers can become excited about the challenges they have, how they can help children to learn more and how they can help in the community.

Planning the content and the production of some materials involves a cost but the running of on-service training within clusters of schools or at teachers' centres does not necessarily involve a cost to the state. This is on the assumption that participants are not paid for participating in on-service training.

Instructional time, homework and time on task. Real instructional time within the year can be increased. It is suggested that the school year could be increased to forty weeks of five-and-a-half days per week (i.e. 210 school days) with an average of six hours of instruction per day in secondary education. The implementation can be tricky because of teacher resistance but some countries have done so. It would be useful if the various political and administrative procedures on how this can be done could be summarized and widely disseminated. In countries where enrolment ratios in primary education are still low, more flexible forms of education, part-time teaching, shorter length of cycles, could be considered, provided other measures to increase the quality of schooling are taken. Homework is highly associated with increased achievement and it is important that it takes place in greater amounts as pupils ascend the school system. Finally, it is possible to make learning an exciting rather than a dreary experience. How this is done should form part of the in- and on-service training, since it is important for effective learning to have all children interested and paying attention throughout the lesson. It is possible to increase time, homework and time on task without involving extra costs.

School management. School principals should undergo in- and/or on-service training. Some of the content of such courses (e.g. ways of motivating teachers, organizing the timetable, obtaining and allocating the budget, working with parents, making the school an integral and positive force within the community, etc.) has been suggested.

Curriculum. As society changes, so must the curriculum be changed to adapt to the needs of the society and to the needs of the individuals. Content must be revised and renewed. The accompanying teacher manuals must include suggestions on teaching methods for different educational objectives and on how to make the teaching/learning experience an exciting one.

Curriculum centres exist in many developing countries. It is their task to monitor the economic changes, the social changes, and the changes in the perceptions of parents and teachers as to what should form the content of the curriculum. At the same time, they must be aware of changes in the curricula of other countries in an increasingly interdependent world. It is important that they do not continuously add to the curriculum; they must also trim it.

Feedback and correctives are important components of the teaching/learning process. Several curriculum centres produce materials (such as tests) for teachers to use and obtain feedback on the extent to which each child has learned each educational objective. Similarly, curriculum centres produce remedial materials which comprise a large part of the correctives process.

A curriculum centre typically costs 0.5 per cent of the primary and secondary school budget. It is difficult to imagine how some countries manage without such centres. It is necessary for curriculum centres to be revitalized and stimulated from the outside with ideas of the practices of other national curriculum centres and of theoretical ideas.

Monitoring the 'health' of the system. Without collecting census data from schools and without having periodic checks on how well children are learning what they are meant to be learning, it is impossible to be aware of the strengths and weaknesses of the teaching/learning process in different schools, districts, regions and the nation as a whole. Not only is it possible to identify the weaknesses but it is often possible to identify the causes of such weaknesses through small research projects.

The establishment of a monitoring unit is essential. But, the staff needs to be trained and retrained. In many cases, where such units exist, the latest research techniques are not learned because the relevant journals and books cannot be purchased due to lack of funds. Again, this is an area where international aid can help in providing mechanisms not only for the provision of journals and books to poor countries but also by ensuring that international intensive courses are run to update knowledge.

Agenda for future research and training activities. The number of tasks to be undertaken by international agencies are manifold. However, it is suggested here that some practical tasks have high priority if the teaching/learning condition is to be improved in many countries. These tasks should include the production of short state-of-the-art reports on: (a) proven effective ways of increasing class and school sizes; (b) proven effective ways of enhancing the status of teachers; (c) the relative effects of different forms of in- and on-service teacher-training programmes; and (d) political and administrative procedures for increasing instructional time.

They should also include the organization of a series of international intensive courses for the revitalization of curriculum centre personnel and the monitoring and research unit personnel. As with all endeavours, they must be done well to succeed. Money alone will not solve problems. It is the foresight, intuition, dedication and perseverance of those responsible in undertaking the above nine tasks which are crucial. ■

Notes

1. They have been increased since but salaries still remain very low.
2. In the Indian subcontinent (Bangladesh, Nepal, India) the absenteeism of teachers and the existence of 'ghost teachers' have been known for years, but it has never been possible to measure the extent of the problem.
3. In Latin America the percentage of repeaters had in fact declined between 1970 and 1975 but it rose again in 1980 and 1983 (Unesco, 1986*b*).
4. Further studies are required to determine to what extent this decline is linked to the erosion in the quality of schooling or to other factors (cost of schooling, low employment prospect).
5. Often, policy-relevant variables are omitted from research studies. Windham (1988) has produced very good lists of indicators for school systems. In the design of studies, the variables (indicators) to be used must be very carefully thought through.

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Planning the quality of education: different information for different levels of decision-making

Kenneth N. Ross and T. Neville Postlethwaite

In recent years, educational planning has often been focused on a limited range of activities concerned with forecasting numbers of students, teachers, and support staff, and predicting the demand for, and location of, supporting plant and equipment which is likely to be required by an education system at any one point in time (Lewin, 1988). All this work provides excellent information for guiding decision-making concerning the quantity, but unfortunately often provides very little input concerning the quality, of education. This is indeed an unfortunate situation, because ministries and departments of education in most countries are charged with the responsibility of making informed decisions in both ot these domains.

In addition to this problem, there is often a lack of understanding within educational planning agencies that the collection and management of useful research information about the quality of education requires an acknowledgement that planning decisions in this domain need to be made at various organizational levels (Tyler, 1986). This article explores the types of information that might be employed

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to guide decisions about the quality of education, and presents some approaches for reporting this information in formats that are appropriate for the various levels at which decision are made.

For the purposes of illustration, four broad levels of decision-making in education are described: (a) parent and teacher decision-making concerning a particular student; (b) school-principal decision-making concerning a particular school; (c) official state or provincial decision-making concerning a particular group of schools; and (d) official national decision-making concerning all a nation's schools.

Information for different levels of planning

Education, as delivered through formal and non-formal schooling, typically comprises an enterprise designed to facilitate an individual's or a group's cognitive, affective, psychomotor and social learning. Those responsible for successful outcomes in these areas include parents, teachers, school principals, state and provincial officials, and national officials.

These persons need to monitor various educational processes and outcomes and, with the assistance of appropriate information, make decisions—tomorrow, next week, next month, next year or in a few years' time—which will influence the education of those in their charge. However, the types of decisions these people have to make and, therefore, the type of information they require is often quite different.

TEACHERS AND PARENTS

Teachers and parents need to gather and share information concerning the nature of the educational behaviours (knowledge, skills and values) that have been taught, the extent to which these have been learned by the child, and the contexts in which the child has demonstrated these behaviours with either competence or difficulty.

In some circumstances this information will describe student performance on individual test items or particular tasks. However, care needs to be taken to ensure that any single item or task provides a stable and representative sample of a defined behaviour across suitable areas of content and context. Generally, it will be necessary to employ a group of items or tasks in order to be able to make reliable statements concerning a defined behaviour for a particular child.

The information needs to be expressed in a manner which avoids technical and educational jargon in order to permit a clear agenda for teacher and parent action to be prepared. This agenda can only address effectively the child's learning strengths and weaknesses in situations where teachers and parents both understand, and agree to, the nature of the child's educational requirements.

SCHOOL PRINCIPALS

School principals seldom need to have information about the educational behaviours of individual children. When this kind of information is required, the principal can consult with the appropriate teacher. However, principals often need to be informed about the progress of learning for each class in the school. Information expressed at the classroom level is more suitable for assisting with decisions concerning the deployment of school resources to ensure that all classes achieve the school's educational goals which have been set by the principal, teachers and parents.

In addition, the principal needs to have information on how well the school is performing in comparison with other similar schools. This is especially important in respect of 'core' educational goals which are also valued by these similar schools. Principals can use this information to review the school's goals, set priorities among these goals, and focus a whole-school effort on improving the school's learning environment in ways which are relevant to the students' aptitudes, interests, and home circumstances.

STATE AND PROVINCIAL OFFICIALS

State and provincial officials do not require information as detailed as that required by school principals because they are far removed from both the daily operations of schools and the daily responsibilities of parents, teachers and principals. The broader role required of these officials, be they administrators, co-ordinators or supervisors, demands that they should make decisions only after having examined information which is sufficient to establish the existence of problems serious enough, or opportunities great enough, to warrant a considerable commitment of their time and state or provincial resources.

Information appropriate in this context should be presented in such a manner as to help officials to employ planning approaches that will provide large groups of schools with the expertise and resources required to set up and evaluate their educational programmes, and then, guided by the results of the evaluations, to adopt procedures that will improve their effectiveness.

To assist planning decisions in this area there is also a need for a periodic and independent appraisal of student progress with respect to the agreed goals of schools within the state or province. This would entail an 'audit' of a sample of the agreed goals and, if some major discrepancy were noticed between school-level information and state-level information, a more detailed investigation could be undertaken. These audits require care because appraisal of a school calls for the support of students, teachers, parents and school principal. This support will not be forthcoming if the collection of information takes up too much student time, results in major disruptions to the school programme, costs too much or does not provide reliable, valid and useful results.

NATIONAL OFFICIALS

National officials require less detailed information than do state or provincial officials. These officials do not work with individual children or classes, and they are unlikely to concern themselves with the affairs of an individual school or a small group of schools. Rather, their role is to make broad policy decisions concerning the linkages between the legislated directives of past and present governments, and the plans and resources required to attend to these directives. These decisions are expected to have impact across whole or large parts of school systems and therefore, because of the conservative inertia of educational institutions and the high costs of initiating system-wide change, a great deal of accurate information about students and schools needs to be collated at the system level.

National officials must have access to information that will identify long-term trends in their education system's capacity to assist all students to make progress towards achieving a high standard of physical, social and cognitive development. In some circumstances these trends will call for intervention in what is seen as an emerging and widespread problem of the inability of students to achieve success in a specific section of the curriculum. In other circumstances, the focus will be on the curriculum itself because it may be seen as being in need of revision and restructuring in order to take account of recent research and/or new social and economic conditions. For most school systems, decisions concerning these matters are grounded in comparative data for various demographic groups within the society and therefore the system-wide information will need to be expressed according to breakdowns associated with, for example, gender, ethnicity and socio-economic factors.

Mechanisms for providing information

In many countries a great deal of the information required for the various levels of decision-making is already available in the form of large-scale datasets obtained from national and international surveys of educational achievement. Some examples are: the Australian Studies in School Performance Project in Australia (Bourke et al., 1981); the Assessment of Performance Unit (APU) in England (Gipps and Goldstein, 1983); National Assessment of Educational Progress in the United States (NAEP, 1986); the Indonesian 6th, 9th and 12th Grade Surveys (Jiyono and Suryadi, 1982); the International Association for the Evaluation of Educational Achievement (IEA) surveys in some forty countries (Pelgrum and Warries, 1986).

The data associated with large-scale surveys usually contain useful benchmarks of student performance on at least some of a nation's agreed educational goals. In addition, many of the so-called independent variables used in these surveys often provide important descriptive information which may be of use to state and national officials.

It is important to note that care needs to be exercised when employing survey data to ensure that the sample designs were drawn up and executed in a scientifically valid fashion. Those surveys that neglect to provide a clear description of the target population, the objective procedures used to select the sample, the stratification decisions, the stages and units of multi-stage sampling, the procedures used to minimize the dangers of bias through non-response, the size of the designed and achieved samples, and the magnitude of the sampling errors, should be treated with great caution.

Another important source of information may be found in data gathered as part of a national examination system. These data can be provided at many levels of aggregation, for example, as average school scores and as average scores for groups of schools serving communities with similar socio-economic characteristics.

If neither survey data nor examination data are available, then school systems may be faced with the design of their own performance monitoring procedures. A recent example of this has been the state-wide testing procedures adopted by the State of California in the United States (Staff, 1987).

Examples of the information to be provided

A tentative list is presented below of the kinds of questions that might be asked at the four 'planning' levels described above. In association with each of these levels a hypothetical table of results has been presented in order to illustrate how information might be assembled and displayed in order to provide appropriate responses to the questions.

Teacher's question: What are my students' achievements on specific sub-dimensions of mother tongue, mathematics and science?

The sub-dimensions considered for each of the three subject areas would depend on the curricular components that have been taught within the teacher's class.

For example: the first sub-dimension in the mother tongue area could be spelling; the second could be reading comprehension required for understanding simple instructions; the third, reading comprehension required for making inferences; the fourth, creative writing, and so on. In the mathematics area the sub-dimensions could be estimation, arithmetic calculations, elementary equations, etc. In the science area the sub-dimensions could be the solar system, differences between plants and animals, properties of metals, etc. Generally, for any reasonable level of reliability in judging a student's capacity to have mastered a domain associated with a sub-dimension, it would be necessary to have at least eight to ten items (Morgan, 1979).

If we assume that there are six sub-dimensions, numbered 1 to 6, and a total score, for each of the three curricular areas, and that ten items have been used to assess each sub-dimension, then a hypothetical table of results for a particular class might be displayed as in Table 1. For the sake of illustration, only four students have been included.

The results listed in Table 1 would enable the teacher of this class to discern a number of interesting performance patterns, both within the profiles of individual students and among the profiles of all students in the class. The teacher would need to digest this information and then, in association with parents and colleagues, formulate a plan of action for individual students and for the whole class.

For example, from the hypothetical results presented in Table 1, the teacher can see that all students have performed quite well on all sub-dimensions associated with science. The teacher and students would be very satisfied with their performance in this area of the curriculum.

Table 1. Hypothetical table of results for a class

Student	Mother tongue							Mathematics							Science						
	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total	1	2	3	4	5	6	Total
A	9	10	4	9	10	10	52	4	5	5	3	7	5	29	9	10	9	10	9	10	57
B	9	8	1	8	9	10	45	9	7	8	9	7	7	47	8	8	9	9	9	8	51
C	9	7	3	8	9	9	45	8	7	9	8	7	7	46	8	10	8	9	8	8	51
D	9	9	2	9	8	9	46	8	7	9	7	7	7	45	8	9	10	8	9	9	53

All students, except for Student A, have performed reasonably well on the mathematics sub-dimensions. Student A, however, has performed extremely well for the other two areas. On the basis of these results the teacher may suggest that this student should concentrate his efforts a little more on mathematics in order to obtain a better and more balanced performance across all three areas.

An unusual pattern of results has emerged for the mother tongue. All students have performed reasonably well, except on sub-dimension 3. The teacher would need to reflect upon the factors which may have prevented effective learning in this area. Some of the factors which might have resulted in this unusual pattern could be: (a) that insufficient class time was allocated to learning the material associated with this sub-dimension; (b) that the students were confused by the way in which the teacher explained the material; (c) that the textbook devoted insufficient space to the material; (d) that no applied examples or homework was given to consolidate the learning of the material; (e) that the material covered for this sub-dimension was unusually complex relative to the other four sub-dimensions; and (f) that the material was presented in a fashion which was not relevant to the students' interests and backgrounds.

School principal's question: On what sub-dimensions of which subject areas and at which grade levels is my school doing well or poorly in comparison with other similar schools and all schools in my district?

In order to be able to address this kind of question, the school principal needs one or more points of comparison: a 'relative' level of performance which will focus on the performance level of his school with respect to other similar schools, and an 'absolute' measure of performance which will provide information concerning the amount of the agreed curriculum which has been mastered by the students.

A relative measure of performance could be estimated by comparing the school's performance with other similar schools within the same school system. The term 'similar' here refers to other schools serving students from the same kind of socio-economic background, having the same standard of staff and equipment, and teaching the same curriculum. The comparisons between these schools could be carried out using breakdown variables which define important groups of students within the schools in terms of gender, ethnicity, year-level, etc. One of the important benefits associated with a relative comparison of schools is that it may be possible to learn from the teaching methods and educational environments of other schools that serve similar communities but are more productive in terms of student learning outcomes.

An absolute measure of performance could be estimated by using pre-set levels of achievement which indicate several broad bands of performance for the whole school. For example, if 75 per cent or more of the students at a particular grade level master the material associated with a specific sub-dimension then the performance for this class level is said to be 'good'. If the percentage of students mastering the material is between 50 and 75 per cent then this is defined as 'moderate', and below 50 per cent is designated as 'poor'. Each of these three levels of performance would lead to different actions being required of the principal. For example, a poor performance level may require a major redeployment of school resources and effort in order to improve student learning, whereas a good performance level may require the principal to limit his activities to providing positive feedback to students and teachers in the form of encouragement.

In Table 2 a hypothetical table of the mean and student standard deviation of raw total scores has been presented for the mother tongue, mathematics and science. These results enable us to consider the relative, but not the absolute, performance of School Y compared with other similar schools, and compared with all schools in the same state. The results suggest a different kind of response is required of the school principal for each of the three curriculum areas. The scores in this table would need to be expressed in the form of 'mastery' levels in order to make statements about absolute levels of performance.

In the mother tongue, School Y is performing poorly relative to other similar schools, and poorly relative to all other schools in the same state. This situation would warrant a review of the school's mother tongue educational programme with a view to improving the performance of the students. The review might begin by visiting some of the other similar schools to try to find out what features of their programme appear to be resulting in a better learning environment for their students.

TABLE 2. Hypothetical results for a relative comparison of a school with other similar schools and all schools in the same state

Schools	Mother tongue		Mathematics		Science	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
School Y						
Males	40.6	2.1	45.8	2.4	50.3	4.4
Females	41.3	2.2	33.4	2.3	49.7	4.5
Total	40.7	2.5	39.5	4.4	50.0	4.5
Similar schools						
Males	55.4	2.4	40.1	2.7	50.1	2.2
Females	53.0	2.3	39.2	2.2	49.2	2.1
Total	54.2	2.4	39.6	2.8	49.5	2.2
All schools						
Males	54.1	2.3	39.0	2.6	57.3	2.1
Females	51.9	2.2	38.1	2.3	56.2	2.2
Total	53.1	2.3	38.5	2.7	56.7	2.3

The scores for mathematics show that the school is performing about as well as other similar schools and also marginally better than other schools in the same state. However, when these mathematics results are broken down by gender, it becomes apparent that, for School Y, there are unusually large performance differences between males and females. The magnitude of these differences exceeds substantially the differences noted for similar schools and other schools in the same school district. This result would warrant a detailed investigation of the learning environments and opportunities that are being provided for female students within the school. The extremely high mathematics performance displayed by the male students suggests that some excellent mathematics programmes are available within the school, and that action should be taken to ensure that female students are able to benefit from this high-quality teaching.

The mean total scores for science indicate that the school is performing poorly with respect to all other schools in the same state, but about as well as other similar schools. A pattern of results like this could be associated with a major difference in school science resources between, on the one hand, School Y and other similar schools, and, on the other hand, all other schools in the same district. In this situation it may not be easy for the principal to improve the learning environment for science in his school because the main reason for these differences might be the availability of expensive laboratory facilities, which represents a factor beyond his control. Furthermore, an important issue associated with the pattern of standard deviation scores in science would need to be addressed by the school principal because the variation between student scores in his school is extraordinarily high when compared with similar schools and other schools in the same state. This result would require an investigation to find out why, within the same school, there is such a high variation in student performance.

The discussion presented above addressed the school principal's question in terms of 'relative' performance. In order to consider the question from an 'absolute' perspective the performance of the school would need to be expressed as a table reporting the percentages of students achieving mastery in the three curricular areas. The principal could then use the previously described benchmarks of 'poor', 'moderate', and 'good' to analyse his school's performance. The setting of percentage mastery levels for these three categories would need to be carried out in association with the most experienced classroom teachers.

State official's question: Which schools and/or groups of schools in my state are performing well or poorly?

State officials are mainly interested in the efficient deployment of state-wide resources so that all schools for which they are responsible have an opportunity to optimize the quality of their educational environments. In some instances, these resources may consist of staff, plant and/or equipment, whereas in other instances less tangible 'resources' may consist of information and ideas that facilitate educational improvements without requiring substantial financial inputs. An example of a successful deployment of the latter type of resource would be found in situations where teacher-constructed curricular materials that have been shown to improve learning are shared as part of a pool of teaching aids.

In Table 3 hypothetical results that would address the information needs of school district officials have been presented. For the sake of illustration, only four schools in the district have been included. These results list the overall performance of each school in the three subject areas described above and then provide a composite score, for example, by using a summation of scores for each area.

The task of the state official in examining these data is to look for patterns of results which might suggest an opportunity for the state to target resources in a more effective and efficient manner. For example, at the individual school level it can be seen that, according to the levels of the composite scores, the overall performance of each school listed in Table 3 is quite similar. However, from an observation of the subject scores it may be noted that each school

TABLE 3. Hypothetical results for all schools in a state

Schools	Mother tongue		Mathematics		Science		Composite score	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
1	40.7	2.5	50.3	2.4	59.4	2.5	51.6	2.6
2	42.3	2.2	52.8	2.5	59.2	2.5	51.2	2.3
3	58.3	2.6	22.2	2.7	42.6	2.3	50.9	2.4
4	58.1	2.2	26.3	2.1	44.3	2.0	50.2	2.2
State	53.1	2.3	38.5	2.7	56.7	2.3	50.8	2.5

has both strengths and weaknesses. Probably of more importance is the appearance of two internally homogeneous 'clusters' of schools, the first containing schools (1 and 2) having poor performance in the mother tongue and excellent performance in mathematics and science, and the second containing schools (3 and 4) having excellent performance in the mother tongue and poor performance in mathematics and science. The existence of these two clusters should prompt a more detailed investigation of why these clusters exist. For example, can the existence of the clusters be explained in terms of differences in student backgrounds, teacher's qualifications, curricular emphases, etc.?

A further question that comes to mind is to ponder whether the mother-tongue teachers in the first cluster could profit by experiencing direct observation of the mother-tongue programmes of schools in the second cluster. And, vice versa, whether the science and mathematics teachers in the second cluster would learn something by observation of equivalent programmes of schools in the first cluster.

Where important patterns exist in school scores, like the clusters described above, it may be important for state officials to seek supplementary information from 'local' sources concerning the special circumstances of the schools in each cluster. An interesting example of this occurred during the 1970s in Indonesia where it was found that the English-language scores of students in certain schools in Bali were several standard deviations above the scores that could be expected of the most able students in the country. These results were explained following the discovery that the schools were located close to golf courses frequented by English-speaking tourists, and that after school hours, and at weekends, many of the students spent a great deal of time practising their English conversational skills while working at the golf course.

National official's question: What are the major factors associated with differences between schools in my country, and are these differences evident in terms of spatial differentiation (for example, provincial differences, urban/rural differences, etc.) or in terms of demographic descriptors (for example, ethnic status, socio-economic status, etc.)?

The national official's task in addressing this many-faceted question commences with decisions concerning the key indicators to be used in order to judge the performance of the education system. In the past many countries have employed 'coarse' performance indicators concerned with enrolment rates and graduation rates. However, more recently, there has been greater interest in highly specific indicators concerned with such matters as attendance rates, retentivity rates, student achievement levels, and discipline problems. Murnane (1987) notes the emergence of this trend in the United States where, although enrolment data had been collected at the national level from 1867, there was no data collected at the national level to assess what students learned in school until 100 years later.

Spatial differentiation and demographic descriptors

Table 4 presents a hypothetical set of results in order to consider the patterns of student achievement across the nation according to two variables that describe spatial differentiation: state location and urban/rural setting. A similar table could be prepared to show demographic variables by displaying student achievement according to several classifications of variables concerned with ethnic and socio-economic status. It is these kinds of tables that provide essential information when national officials attempt to devise long-term educational planning strategies.

The results in Table 4 indicate that, at the national level, there are negligible differences between urban and rural areas in all three subjects. In addition, the overall performances of student in State 25 is quite good, being generally a little more than two score points above the national level, both for the total state figures and also for urban and rural areas. State 1, on the other hand, displays overall performance figures which are substantially lower than the national average. In addition, within State 1 there are large variations in student performance between urban and rural areas.

The evidence presented in Table 4 would provide grounds for a thorough review of educational provision in State 1. The national official would probably commence such a review by proposing a comparison of the educational environments provided for students in States 1 and 25. Some relevant questions to consider would be

TABLE 4 Hypothetical table of results in urban and rural areas for each state and the nation

Province	Mother tongue		Mathematics		Science		Composite score	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
State 1								
Urban	36·7	2·5	33·3	2·4	37·4	2·5	42·6	2·6
Rural	41·3	2·2	40·8	2·5	43·2	2·5	49·2	2·3
Total	39·0	2·8	37·1	2·7	40·3	2·9	45·9	2·9
State 25								
Urban	45·8	2·1	45·3	2·4	47·7	2·4	53·7	2·2
Rural	45·7	2·2	45·1	2·6	47·6	2·4	53·5	2·3
Total	45·8	2·3	45·2	2·7	47·7	2·4	53·6	2·3
Nation								
Urban	43·6	2·3	43·1	2·6	45·5	2·6	51·5	2·4
Rural	43·5	2·4	42·9	2·8	45·4	2·6	51·3	2·5
Total	43·6	2·5	43·0	2·9	45·5	2·6	51·4	2·5

those concerned with differences between these two states in terms of teacher quality, school buildings, curriculum and, importantly, the socio-economic background of the students.

Factors associated with differences between schools

The 'circumstances' of schools should always be taken into consideration before making decisions concerning their performance as educational institutions. That is, the output of schools, as measured by the amount of learning experienced by students, should be considered in association with the quality of student intake and the prevailing social and physical environment within which schools operate. If schools are judged solely by the average achievement scores of their students, then many schools that are doing an extremely effective job, given their circumstances, may be misjudged as being ineffective and vice versa.

For example, consider a school that has overcrowded and inadequate buildings, has very few textbooks, has limited access to cultural experiences for its students because of isolation, and has many students from very poor and illiterate families. It would be extremely unfair to judge this school as performing poorly if it was found that the average literacy score of its students was slightly below the national average. In fact, after taking account of the school's circumstances, it would probably be considered that the school has performed admirably.

The circumstances of schools may be described in terms of two broad classifications of variables that are sometimes labelled as 'malleable' and 'non-malleable'. The non-malleable variables are those that influence the outcomes of schooling, but are not, in the short term, readily amenable to manipulation by those decision-makers responsible for the management of the education system. Some examples of these kinds of variables would be the socio-economic circumstances of students' home backgrounds, the geographical environment of the school, and the distance of the school community from various educational and cultural facilities. The malleable variables are those that influence the outcomes of schooling and, in the short term, may be manipulated by decision-makers. Some examples of these would be textbook provision, teacher in-service training programmes, homework requirements, school staffing, school curricula, etc.

The national official, being unable to influence the non-malleable variables in the short term, is most likely to pose the following two questions: What are the differences between schools in terms of their output, after taking into account school circumstances as measured by the non-malleable variables? Which of the malleable variables are most influential in assisting schools to become more effective?

One approach to providing answers to these two questions would be to begin by using a between-schools regression analysis with the non-malleable variables as predictor variables and mean student achievement scores as the criterion variable. The resulting regression equation could be used to create a measure of school output which has been statistically 'adjusted' for the circumstances of the school, as measured by the non-malleable variables. It should be noted here that the calculation of adjusted scores requires a great deal of care with respect to using data aggregated to the school level. (See Keeves and Sellin, 1988.)

This adjusted output measure would be equal to the school residual score calculated by subtracting the 'expected', or 'predicted' student mean achievement score, obtained from the regression equation, from the 'actual' mean student achievement score. A large positive residual score would indicate that a school was performing efficiently because it was doing 'better than expected' after taking account of the non-malleable variables. Similarly, a large negative residual score would mean that a school was performing inefficiently because it was doing 'worse than expected' after taking account of the non-malleable variables. It is important to note that, generally, some degree of 'confounding', or 'overlapping', tends to occur between malleable and non-malleable variables in most educational environments. Consequently, there may be a tendency to over-adjust for the non-malleable circumstances when forming the residual scores by using regression analysis. Fortunately, this statistical artefact tends to result in conservative estimates of the residuals and accordingly increases the confidence by which schools with large residual scores may be classified as being either efficient or inefficient.

Following these analyses, a sample of very efficient schools could then be compared with a sample of very inefficient schools in terms of their differences with respect to the malleable variables. The comparison of these two groups of schools would address the second of the questions presented above.

In some situations it may be deemed important to conduct a test of statistical significance between the two groups with respect to an important malleable variable. Care should be taken with this procedure on order to ensure that the test incorporates an allowance for the sampling of intact groups of students. This matter, in association with a method for calculating an appropriate allowance, has been discussed by Ross (1987).

Consider, for example, a situation where the major difference between the two groups of schools was concerned with library provision. (Fuller's (1987) review of school effects in Third World countries notes that library size and activity contributes consistently towards improved learning outcomes.) In this situation the national official would need to launch an investigation, probably of a qualitative nature, to find out why this had occurred. The reason for the situation might be linked to any, all or none of the following possibilities. Perhaps there were problems associated with the distribution of library books. Perhaps some schools were able to obtain more books than other schools. Perhaps the books incorporated a cultural bias which resulted in their rejection by certain schools which served particular ethnic communities. Perhaps a simple clerical error had resulted in some schools not receiving their books.

Unfortunately, in most educational settings the differences between the two groups of schools will probably be associated not just with one clear malleable variable as described above. Rather, there will probably be a range of interrelated variables which will need to be grouped according to the different actions that need to be taken and the costs of these actions. Some actions may be inexpensive and easy to implement (for example, correcting the clerical error which interfered with the distribution of the books) while other actions may be expensive and difficult to implement (for example, purchasing new books for each school and ensuring that they fit the cultural requirements of the local community).

When all actions are grouped and costed, they may be presented to key decision-makers for consideration. At this stage, a prioritization

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process will probably be required in order to enable those actions that are selected for implementation to be manageable within a country's budgetary and political situation. For example, some actions which involve large expenditures may need to be deferred until better economic conditions prevail, while other actions, which focus on complex ethnic and cultural issues, may require lengthy preliminary negotiations with community leaders before implementation commences.

This article has presented a rationale, and some hypothetical examples, for considering the different levels of decision-making within education systems and the ways in which relevant information may be gathered and displayed in a manner that will assist with decision-making.

We believe that there are many low-cost opportunities for fruitful sharing of information across decision-making levels provided that sufficient prior thought is given to the nature and presentation of the information that is collected. For example, the regular data collections conducted by teachers and school principals about their own schools can sometimes be co-ordinated among a cluster of schools in order to also provide information that is of interest to state or national officials. Similarly, by including some supplementary data collections, large-scale surveys of educational achievement can report their results in a form required by national or state officials and also in a form that assists teachers and school principals.

The discussion presented in this article concerning the notion of comparing school performance after adjusting each school's output for the quality of its input is not a new idea for educational researchers. However, it is relatively novel concept for most parents and, surprisingly, it is an idea that is often by-passed during 'informed' discussion of schools and their reputations for excellence. The school mean test scores for large school systems in the United States which are regularly reported in the mass media, with little interpretive comment, represent excellent examples of the dangers associated with this approach (Staff, 1987).

In conclusion, we consider that the issues that have been canvassed in this article have implications for future changes in the ways in which educational planners are trained. In particular, the current tendency to provide intensive training in quantitative techniques needs to be supplemented by experience in linking these techniques to decision-making requirements concerning the quality of education at all levels of education systems. Hopefully the discussion presented here will go some way towards stimulating debate on this subject. ■

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Educational reform and planning in the current economic crisis

Martin Carnoy

Educational decision-makers worldwide face financial pressures to reduce educational spending and, at the same time, to find new ways to meet undiminished social demand for more and better schooling. I will argue that in this 'crisis' the underlying rationale for educational expansion that prevailed in earlier, more favourable economic circumstances has not changed. What has changed are the economic constraints for educational planners and the political-ideological context in which educational decisions are made. Rather than succumbing to pressure to abandon mass education and the ideal of achieving greater social equality and participation through expanded, higher quality education, decision-makers should develop new strategies (a) to increase the share of public spending dedicated to both formal and non-formal education and (b) to improve the quality of mass education, particularly primary schooling for marginal populations.

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Two opposed conceptions of education

Slower (and in some regions, even negative) economic growth in the last five years accentuated already slower gross domestic product (GDP) increases in both petroleum-importing and exporting nations during the 1970s. This eventually had to strain public spending, including spending on education, and I shall show that it did. But from an educational planning perspective, the slowdown has complex implications. The quantitative and qualitative expansion of schooling and even non-formal education in developing countries needs economic growth for adequate financing. Yet, investment in education appears to contribute significantly to future economic growth (see, for example, Becker, 1964; Carnoy et al., 1982). So even in a period of austerity in public spending, it is unclear that spending on education should be reduced.

The issue of how much to spend on schooling is made even more complex by the special political-economic role that schooling plays in the development process. Schooling represents more than a contribution to economic growth. In most societies, how much schooling one gets dictates how well an individual does materially and socially (Carnoy and Levin, 1976). School expansion is viewed politically as providing the possibility of greater social mobility and more equal income distribution (Carnoy et al., 1979). Further, using schooling for improving social mobility and equalizing income distribution may imply a very different educational (and public spending) strategy than one which stress economic growth.

The views of education as an input into economic growth (capital accumulation) and as a source of social mobility (economic and social equity) conflict historically (Carnoy and Levin, 1985), primarily in terms of where educational effort should be placed and what kind of education to provide. Those who support the first view argue that an investment in education specifically for growth and in a way that allocates resources in a growth-efficient way is a crucial contribution to the dynamic of capital accumulation in any country, and by gearing the school system to this purpose, eventually everyone (even those who do not get schooling) will be better off. Those who support educational expansion for social participation in the development process argue that economic growth without the full participation of all members of society is only partial development. In addition, they contend that by gearing the educational system to full participation, society can mobilize social resources that will reduce the costs of schooling and increase school yields. In a sense, they argue that it is more 'efficient' to stress participation rather than economic efficiency for growth objectives.

Which of these goals for educational expansion is pursued and which solutions are adopted (efficiency versus mobilization and participation) is part of a dynamic situated in a political/economic/social conflict where the educational system and the resources (both financial and human) it commands become an important site of conflict.

It is precisely during periods of economic crisis that this conflict manifests itself in the shape of proposals for educational reforms. When funds are short, those who hold the efficiency view want to reform education by sharply slowing down educational expansion and by increasing educational quality through focusing on those who already do well in school. The participation view wants to reform education by continuing to increase access to education and by focusing on improving the quality of schooling of those who do least well (the poor, minorities, marginal groups).

Therefore, I shall argue, arguments for and against increasing and improving mass education are conditioned principally by two somewhat related realities.

The first is economic: it is more difficult today for most countries to generate resources for education because of the sharp slowdown in world economic growth in the 1980s and the deficit financing that was used to spur such growth after 1973.

The second is political-ideological. Whether to expand and improve education or not, or how to reform education, given the real financial problems faced by most countries, represents a much wider debate concerning efficiency and democracy. Education sits squarely in the centre of this debate, precisely because of its crucial role in the development process. There is an inherent conflict between schooling's role in preparing labour for a modernizing economy (the investment, economic efficiency, or reproductive function of schooling—see Inkeles and Smith, 1974) and its role in equalizing opportunity and providing for social mobility (the equity or legitimating function of schooling—see Giroux, 1981; Apple, 1982).

Educational expansion and economic crisis

The available statistical evidence suggests that from 1960 to the early 1980s there was a rapid and large increase in the amount of education available to the world's young people. Table 1 shows that in every group of countries, primary, secondary, and higher education expanded significantly. Nevertheless, the figures indicate that many countries—particularly those with low income per capita—are far from a situation

Table 1. Enrolment in education, by level, as a percentage of age-group, 1960 and 1981

	Primary		Secondary		Higher	
Country group	1960	1981	1960	1981	1960	1981
Low income	80	94	18	34	2	4
China and India	90	102	21	38		4
Other	38	72	7	19	1	2
Middle income	75	102	14	41	3	11
Oil importers	84	99	18	44	4	13
Oil exporters	64	106	9	37	2	8
High income oil exporters	29	83	5	43	1	8
Industrial market economies	114	101	64	90	16	37
East European non-market	101	105	45	88	11	20

Source: World Bank, *World Development Report*, New York, Oxford University Press, 1984, table 25.

where most children complete primary education. Even so, these same societies are rapidly expanding their higher educational institutions. And as Coombs (1985, pp. 78–9) notes, the high primary school enrolment percentages shown in Table 1 hide the low percentage of children who *finish* primary school. In that regard, the percentage enrolment in secondary school is a good indicator of the amount of primary school received by the average child. Assuming that 15 to 20 per cent of the pupils in secondary school are over-age (outside the age cohort associated with a particular level of schooling), only about one in three youth in the secondary-school age cohort in middle-income countries was enroled, suggesting that perhaps 40 per cent of the relevant age cohort finished primary school. The corresponding figure is much lower in the non-China India low-income countries. The fact that educational growth has been impressive, therefore, does not mean that the mass of the world's young people is receiving even a minimal education.

One of the most important barriers to the continuation of past expansion is the slow-down in world economic growth after 1973. Tables 2

Table 2. Growth rate of real GDP of industrial and developing economies, 1960–83 (percentage)

		GDP growth rates		(Average annual % change)			
Country group	1980 GDP per capita ($)	1960–73	1973–79	1980	1981	1982	1983
Developing countries	650	6.3	5.2	92.5	2.4	1.9	1.0
Low-income	250	5.6	4.8	5.9	4.8	5.2	4.7
Asia	250	5.9	5.2	6.3	5.2	5.6	5.1
China	290	8.5	5.7	6.1	4.8	7.3	5.1
India	240	3.6	4.3	6.9	5.7	2.9	5.4
Africa	250	3.5	2.1	1.1	1.2	0.5	−0.1
Middle-income oil importers	1 500	6.3	5.6	4.3	0.9	0.7	0.3
East Asia and Pacific	1 110	8.2	8.6	3.6	6.7	4.2	6.4
Middle East and Northern Africa	800	5.2	3.0	4.2	2.4	5.5	2.0
Sub-Sahara Africa	610	5.0	3.7	5.5	3.9	1.1	0.3
Southern Europe	2 210	6.7	5.0	1.5	2.1	0.7	−0.9
Latin America and Caribbean	1 840	5.6	5.0	5.8	2.3	0.4	−2.2
Middle-income oil exporters	1 120	6.9	4.9	2.4	2.4	0.9	1.7
High-income oil exporters	14 250	10.7	7.7	7.4	0.0		
Industrial market economies	10 440	4.9	2.8	1.1	1.3	−0.1	2.3

Source: World Bank, *World Development Report, 1984*. New York, Oxford University Press, 1984, table 2.1.

Table 3. Average GDP growth of industrial and developing economies, 1960–95 (average annual percentage change)

Country group	1960–73	1973–79	1980–85	1985–95 High case	1985–95 Low case
Low-income					
Asia	5.9	5.2	5.8	5.3	4.6
Africa (Southern Africa not included)	3.5	2.1	1.7	3.2	2.8
Middle-income oil-importers					
Manufacture exporters	6.7	5.8	1.6	6.3	5.2
Other	5.3	4.3	1.9	4.3	3.8
Middle-income oil exporters	6.9	4.9	2.4	5.4	4.7
Industrial economies	4.9	2.8	1.9	4.3	2.5

Source: World Bank, *World Development Report*, 1984, table 3.1.

and 3 indicate that this slow-down has been steady and significant for all groups except the low- and middle-income Asian countries. China and India dominate the lower income Asian group, and they apparently have been much less affected by the world economic crisis than smaller economies that are more dependent on world trade and foreign investment. Although World Bank projections (see Table 2) suggest that growth rates in developing countries should improve substantially even under more conservative assumptions, the projections also suggest that economic growth over the next decade will be considerably less than the rates in 1960–73, and could be less than those in 1973–79.

Unless countries are willing to increase substantially the percentage of GDP going to education, these lower growth rates make it virtually certain that the growth of formal education in the world will slow down in the next ten years. What is the likelihood of increasing the budget for education as a percentage of gross product? Coombs (1985, p. 141) shows that in the period 1960–75, public spending on education rose steadily in the developed countries from 4 to 6 per cent of GNP, and in the developing countries, from 2.3 to 4 per cent. In 1975–79, however, education's share of spending in both developed and developing countries levelled off and began to fall slightly.

Table 4 indicates another aspect of the problems that education faces in the 1980s. For all but middle-income oil exporters and the indus-

Table 4. Central government expenditure (CGE), by category and as percentage of GNP, 1972 and 1981

			Percentage of CGE			
	CGE/GNP		Defense		Education	
Country group	1972	1981	1972	1981	1972	1981
Low-income (excluding China and India)	21.0	15.4	11.4	18.3	16.4	5.9
Middle-income	19.6	24.5	15.2	9.6	12.4	14.3
Oil importers	20.7	21.8	14.7	15.8	11.0	10.0
Oil exporters	17.2	27.8	16.3	6.2	15.4	16.6
High-income oil exporters	36.6	26.3	12.0	28.0	13.5	9.2
Industrial market economies	21.7	28.3	23.4	13.6	4.3	5.1

Source: World Bank, 1984, adapted from table 26.

trial market economies, spending on education between 1972 and 1981 fell as a percentage of total central government expenditures, whereas spending on defense increased. In the first half of the 1980s, with the United States leading the way, it is likely that military spending increased in the industrial market economies and educational spending decreased. Of course, central government expenditures represent only a fraction of total public educational spending, and this fraction varies from country to country. But the figures in Table 4 suggest a trend: in the 1970s, within a generally rising amount of central government spending (as a percentage of GNP and in absolute real terms), education was losing out to increasing military spending in the developing world. By 1981, assuming that all defence spending was 'central government', it had reached approximately 3 per cent of GNP in developing countries, almost as large a share of output as educational spending.

The combination of slower growth rates of Tables 2 and 3 with the shift in spending from education to military in Table 4 suggests that educational expansion in the 1970s and early 1980s confronted a falling share of a falling increase in available resources. When we add Coombs's observations about the rising costs of providing formal education per pupil (both because the average training of teachers is increasing in each level of schooling and because the average education taken by each pupil rises for every new cohort), the economic reality of educational expansion is rather pessimistic.

Education faces another, less obvious, problem. The private sector (especially banking) in developed countries is attempting to convince debtor developing countries as well as the public sector in their own societies that public sector spending—especially social spending—must be cut to increase economic growth. The International Monetary Fund requires debtor nations to undertake domestic austerity programmes and export promotion as a pre-condition of short-term financial assistance. As a result, public social spending is under considerable pressure from those who see it as a primary cause of inflation and hence, as an obstacle to economic growth.

Nevertheless, educational expansion and improvement could continue at a moderate but substantial rate both in developing and developed countries if the World Bank projections are correct and if societies are willing to increase, rather than decrease, the percentage of their GNP going to education. The overriding issue is one of competing for public resources with two powerful political foes: the militaries of the world (and their supporters), and those who would diminish public sector resources in the name of increasing economic growth.

The 'austerity' faced by educational planners and reformers who view education as crucial to increased growth and a more equitable, participative society is therefore anything but an absolute. Higher short-term economic growth *is* fundamental to educational expansion, and the less-than-adequate availability of resources caused by low growth rates can only be overcome by taking economic policy steps that increase the savings rate and efficiency in the allocation of resources. But there is no single path to higher growth, and austerity in educational spending implies risking longer-term growth for tenuous short-term results. Further, even if public spending as a share of GNP has to be reduced, military spending, which uses a significant percent of output and is of questionable investment value, could be even more susceptible to spending reductions under austerity than education.

These choices are not based on hard-and-fast technical rules. They are largely political. Equally political are the types of educational reforms that are associated with the more general decisions about austerity versus expansionary policies, and the decision whether to stress social versus military spending. To a large extent they hinge on the kind of society that developing countries aim to produce. An educational system that reflects a drive for high-level skills in a period of 'austerity', imposed in part by an increasing fraction of national resources going to a sophisticated military and to subsidize foreign and domestic exporters, will be a system that focuses on high-quality schooling for the few. An educational system that aims to contribute to increasing domestic demand and to expanding the capability of the economy to meet that demand, will tend to focus, instead, on improving the quality and quantity of primary and secondary schooling for the mass of children and even adults. This is not a new conflict, but it is exacerbated in periods of economic crisis. To understand the nature and reasons for this conflict, we must have a better understanding of the socio-political role of schooling in changing societies.

Educational expansion and political/ideological conflict

Elsewhere (Carnoy and Levin, 1985), we suggest that the dynamic of educational change can best be understood as a condensation of a much wider social conflict inherent in the development process. The conflict emerges from unequal power in production and social relations, and inequalities of income, wealth, and political participation. These inequalities generate struggles by subordinate, relatively powerless groups for greater equality, economic security, and power over social decisions. In a politically democratic society, the space for such struggles is provided by the state (Carnoy, 1984). But even in undemocratic societies, the state is the focus of social movements that want to expand their rights and power over resources; the struggle, however, tends to be less institutionalized (Cardoso and Faletto, 1979).

In public education, the social conflict is expressed in the conflict between reforms that reproduce the educational inequalities required for social efficiency under hierarchically-organized production and reforms that equalize opportunities in order to achieve the ideals of social mobility, democratic participation, and constitutional protection.

Thus the history of the expansion of schooling in most societies is characterized not only by correspondence to changing (hierarchical and unequal) work-places but also by an impetus toward greater equalization, democratization and participation through education. Education is subject to internal stresses created by the two contradictory directions of inequality and democracy, both emerging from social conflicts and the prominent place of education as an arena of social conflict. These movements toward equalization and democratization are evident not only in the overall culture surrounding education (and teacher, student and community belief in education) but also in the direct challenge to existing laws and in the establishment of new legislation that allows for unions for teacher and the increasing rights of parents and students in schools. (For a fuller development of this theory, see Carnoy and Levin, 1985.)

The state—where much of the conflict over education is played out—has itself has become an increasingly important part of the production system (Carnoy, 1980). Increased state intervention is part and parcel of social conflict. The present array of social welfare spending in many industrialized countries, for example, is in large part the result of state responses to potential conflict during the economic crisis of the 1930s and the social struggles of the 1960s. So there has been a shift of resources from the private sector to the state. The relationship of production to ideology remains structurally intact, but the site of its dynamic has shifted dramatically. The nature of the capital-labour conflict has been altered by the state's intervention through social spending on social security and health care and directly in production and employment. While inherent contradictions still exist in production, much of the social conflict related to these contradictions has shifted to conflict over resources commanded by the state for reproducing and sustaining the private sector.

Education, as part of the state, is also an arena of social conflict. If the state in most societies is viewed as responsible for justice and equitability in an inherently unjust and inequitable system of production, education's ostensible role is to improve subordinate groups' social position by making relevant knowledge and certification for participation available to those groups. At the same time, the state and its educational system must, by definition, develop skills for the (hierarchical) production system and its unequal division of labour. This tension between reproducing inequality and producing greater equality is inherent in education, just as it is inherent in all the institutions structured according to class, race, and gender within a society in conflict. The basis of this conflict is not ideology as such but ideology as it relates to the concrete reality of social position, material gains, and political power.

Thus, educational reforms can influence struggles in the work-place, the state, and the community, just as educational reforms are situated in these struggles themselves. While social relations are shaped by the process of capital accumulation, and the role of the state and education must be situated in those social relations, the place and process of reproduction is also a site of social conflict. Of primary interest is the relationship between the struggle for more humane work conditions, more equitable distribution of rewards, and greater control over production decisions and the concomitant struggle for a more equitable and just educational system.

The world economic crisis and educational reforms

In politically democratic societies, the schools are an arena of conflict because they have the dual role of preparing workers and citizens. The preparation required for citizenship in a democratic society based on equal opportunity and human rights is often incompatible with the preparation needed for job performance in a hierarchical system of work. On the one hand, schools must train citizens to know their rights under the law as well as their obligations to exercise these rights through political participation. On the other, schools must train workers with the skills and personality characteristics that enable them to function in authoritarian, hierachically organized work regimes (Inkeles, 1966). This requires a negation of the very political rights that make for good citizens.

Furthermore, schools are conservative institutions. In the absence of external pressures for change, they tend to preserve existing social relations (Bourdieu and Passeron, 1977). But external pressures for change constantly impinge on schools even in the form of popular tastes. In historical periods when social movements are weak and business ideology is strong, schools tend to strengthen their function of reproducing workers for hierarchical work-place relations and the unequal division of labour. When social movements arise to challenge these relations, schools move in the other direction to equalize opportunity and expand human rights.

Such shifts in primacy are not a coincidence. Strong pressure in one direction creates contradictions that activate powerful social forces to shift the momentum in the other direction. For example, in the developed industrial countries, the gains of big business over labour in production and in the state (including in education) during the first three decades of this century fostered social and educational inequalities that were contrary to the precepts of a democratic society. In the next four decades strong social movements were unleashed to address the educational needs of the economically disadvantaged in developed countries and of the mass of totally unschooled youth and adults in the developing nations. Laws were passed providing these groups access to national resources, programmes, and schools not available to them in the past.

Much of this shift took place, however, in a period of economic expansion during which personal income was rising. The state in almost every country in the world—because of its highly visible and positive role during the great Depression and because of the apparent success of economic planning in the Soviet Union between wars—was able to get an increasing share of national resources after 1945.

With the onset of lower growth rates, inflation, and falling real wages in the 1970s, however, this delicate arrangement began to deteriorate. A fiscal crisis of the state further contrained educational expansion. Social commitments to increased equity and equality became the subject of intense conflict, usually in the name of increasing economic efficiency for higher growth. Education seemed to lose its high priority as an increasing proportion of students came from working-class and peasant backgrounds. In the developed countries, an aging population and fewer children of school age.

Moreover, many of the educational programmes and commitments to greater equality and democratic participation incurred high economic costs (Coombs, 1985). The result was that public educational spending per pupil rose dramatically, but—faced by fiscal constraints—governments had to slow down an educational expansion that had not yet reached marginal groups, and, in most countries, fell far short of satisfying social demand. In that sense, the world educational expansion of the 1950s, 1960s and early 1970s, in which democratic and egalitarian ideals prevailed, contributed to and even stimulated the political backlash of spending cutbacks. The larger struggle over the resources controlled by the stade during this present period of economic crisis resulted in drastic slow-downs of public spending on education, health, and other social services. The democratic dynamic, so strong during the post-war period, has been in part undermined by its own success: social problems had appeared soluble by expenditure of what for a time was a constantly growing source of public revenues generated by steady, seemingly unending economic growth. Once economic growth decreased, however, the coalitions that supported expanding social services have had much greater difficulty maintaining the equalitarian dynamic.

Thus, the educational thrust of the 1950s and 1960s was toward greater social equality, but the economic crisis of the later 1970s and early 1980s served to shift the momentum to the efficient development of a work-force that would respond to the needs of production. In economies as diverse as in the United States, Western Europe, and China, the call given to the schools is to make industry competitive through increasing the rigour of education and training. This emphasis was in sharp contrast to the preoccupation of the previous three decades with educational equity, equality and access.

The reforms of the 1980s thus far are therefore largely in the direction of greater efficiency in the educational system with respect to the particular outcomes considered important for economic vitality. The implicit message is that better education is a question not of more spending per pupil but of better 'management', better teaching promoted by competition, and greater student discipline. Emphasis is placed on higher standards for preparing students for what is perceived as a work-place requiring higher and higher levels of skills for high technologies. Resources for funding the reforms have generally not been adequate to the task, and the concern for equality in education and the democratic goals of schooling have been relegated to a 'benign neglect'.

In this decade, the pressures for using the schools for reproduction of the work-force have achieved primacy over those on the side of democratic and equalitarian reforms. Though much is said about the economy, little is said about democracy in pursuing educational change. But the struggle between the two forces is still very much alive, even though the present policy seems to favour capital acculumation rather than equity and popular participation.

Planning education in the 1980s

Undoubtedly the most important message to educational decision-makers and planners implied by this analysis is that the present 'crisis' of education is situated in an historical dynamic of conflict between competing goals for the educational system. The 'necessity' of slowing down the expansion of education and of making it fit better into the needs of efficient production, is only a necessity in so far as those political forces that hold that view can convince the state to undertake such reforms.

At the same time, the push for increased and improved schooling for the poor—especially a radical improvement in the quality of primary education—by the forces of democratization, is certainly far from ended historically. It is precisely these forces that will expand in politically democratic developing countries because of the fundamental social role played by the educational system. Planners and decision-makers concerned with developing the types of education—both formal and non-formal—and economy that serve the broadest needs of their society and their citizenry would be well advised to consider this historical dynamic. Even under the present circumstances—when the quest for improved educational services for marginal groups is under subtle and indirect attack by conservative interests—it is the marshalling of social movements and democratic forces that places limits on retrenchment and makes the battle costly for the other side. Planners and decision-makers who understand the importance of high-quality mass education for democracy and long-term economic development will continue to work for the democratization of schooling and resist attempts to reduce educational spending in the name of austerity and short-term economic expediency.

In practical terms, this means that planners should focus on primary education, especially improving teacher quality and the universal availability of textbooks, and on raising the quality of primary schooling for marginal populations where that level is already widely accessible to children of school age.

It also means focusing on better school management, not only so that existing resources can go farther, but so that primary school students get more and higher quality teaching-learning time. There is no inconsistency between supporting better management in schools and the democratization of schooling. The relevant question to be asked is: better management for what and for whom? Greater school efficiency is often interpreted to mean that disadvantaged, poorer students must be separated from the gifted; that the primary aim of education is to increase standardized examination scores; or that schooling must be made 'relevant' to the kinds of work that pupils are likely to do once they finish school.

Better school management for the democratization of society focuses, to the contrary, on the incorporation of all children of school age into primary schools and providing them with the quality of teachers and materials that enable them to become active participants in a developing society. This may require raising the level of nutrition of these children as well as building schools, training teachers, and making non-formal education available to the children's parents. It also may require mobilizing high school and university students into teaching—especially in rural schools and communities—as a primary activity for several years after graduation.

The key to such educational planning is to comprehend the socio-political nature of the educational project in both developed and developing societies. As I have discussed, the world economic crisis has conditioned the political climate in which the educational project is framed. But the principles of educational planning for the democratization of society remain unchanged. Only the process of moving toward that objective have become more difficult. The present economic crisis has greatly strengthened those forces who would use the present crisis to reduce educational expansion and shape the educational system for a very different set of goals. Under their assault, educational planning for democratization requires more clearly defined objectives and concrete proposals for educational change. But as important is the political strategy for implementing these proposals. For, as this analysis suggests, educational expansion in the 1980s will require political acumen as well as technical expertise.

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The impact of the debt crisis on education in Latin America

Implications for educational planning*

Fernando Reimers

This article examines the impact of the external debt in Latin America on education. It also discusses some areas of educational policy that require reform to cope effectively with the adjustment process and emphasizes the implications for educational planning and management.

The adjustment programmes implemented in response to the 'debt crisis' make up a new scenario for educational planning and management. There are two ways the education system can adapt to this new scenario: (a) quick-fix adjustment or (b) planned reform. Of these, planned reform has a better chance to preserve efficiency and equity in the provision of education.

Quick-fix solutions are the antithesis of planned change. Furthermore, they may lead to adjustments that are more attentive to the interests of the most vocal than to considerations of efficiency or equity. At a recent conference on the crisis of educational quality in Latin America I asked a provincial secretary of education to explain the criteria according to which there had been drastic reductions in the percentage of government expenditure on primary education and teaching materials and scholarships. His answer was that such changes were unintentional and unplanned.[1]

Drawing on the work of Hewton (1986) in the United Kingdom, I propose that the recognition of this new scenario of diminished gov-

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* From a paper presented at the International Congress on the Planning and Management of Educational Development, sponsored by UNESCO, Mexico City, March 1990.

ernment resources for education (related to a debt crisis that seems more chronic than critical), has to precede any attempts to reform educational policy. It is important for educational policy-makers to realize how drastically the financial scenario has changed in order to promote systemic reforms in education.

Analysing the impact of reductions in education expenditure in the United Kingdom, Hewton advances the notion of 'cultures of choice', referring to the organizational climate in which educational policy decisions are made. He suggests that reductions in financial resources require moving from a 'crisis culture', in which the sense of direction is lost, to a 'culture of cuts', which attempts to control the decline associated with reduced levels of expenditure.

Hewton proposes that the emergence of a cuts culture will proceed in a three-stage process of response in local bodies of educational decision-making: (a) defensiveness and denial of the problem; (b) pragmatic adjustment – cut what you can – and (c) reform, where policy-makers realize that short-term adjustment has meant undesired sacrifices in equity or efficiency (Hewton 1986, pp. 128–43).

The Latin American financial crisis has proved long enough to require moving from a 'crisis culture' to a culture of reforms in which the reduced levels of government spending will be part of the new scenario of educational planning and management.

Debt and education in Latin America

Latin America is, tragically, the best of all places to test the hypothesis that debt-servicing can squeeze educational development. It is a region in which education expanded vigorously in the 1960s and 1970s. Yet, since the early 1980s it is the area of the world hardest hit by external debt.

In the 1950s education in Latin America began a process of remarkable expansion. The next thirty years were a period of optimistic goal-setting, and of increased importance of the educational sector in the development agendas of Latin American governments. An outline of that history can be obtained by following the regional conferences of Ministers of Education.

In 1956, the first regional conference in Lima, Peru, called the Conference on Free and Compulsory Education, set the stage for the impressive expansion that was to follow. As a result of that meeting, UNESCO adopted in the same year the Major Project on the Extension and Improvement of Primary Education in Latin America, to be completed in 1966.

The next regional conference held in Santiago de Chile in 1962, was a joint meeting of Ministers of Education and Finance. It encouraged the idea that education was a necessary condition for economic development. The Santiago Conference set targets of universal primary education in several of the most advanced Latin American countries by 1965. One year later, however, at the Bogota regional meeting, this target was postponed to 1975. The Buenos Aires conference in 1966 reiterated the notion adopted in Santiago that education was an investment in economic development. The stimulus that education systems received from these meetings was important, and all the countries in the region made significant improvements. This was particularly evident at the 1971 regional conference, held in Venezuela. Between 1960 and 1970 the total in-school population in the region grew at an annual rate of 6.1 per cent (UNESCO, 1976*a*, p. 21); this growth outpaced the growth of the school age population in that period. This expansion of education systems would not have been possible without major improvements in educational finance. National public expenditure on education in the region increased noticeably. Educational expenditure in Latin America, as a percentage of gross national product (GNP), increased from 2.8 per cent in 1960 (UNESCO, 1976*b*, p. 93) to 3.4 per cent in 1976 (Blat Gimeno, 1981, p. 70). It was against this background of quantitative development that the conference in Venezuela, and the next one in Mexico in 1979, set further targets for the improvement of qualitative aspects of education systems.

In 1979 a look at the success of the recent past seemed to justify higher hopes and aspirations for the future. For example, the Mexico conference suggested increasing public educational expenditure to a new goal of from 7 to 8 per cent of gross domestic product (GDP). The underlying logic of these new aspirations may have been that the economic progress which had helped finance the educational expansion of the past would continue. However, a rapid deterioration of the Latin American economies had already begun at the time of the 1979 conference. In fact, only three years after the Mexico regional meeting, Mexican officials suddenly announced their inability to meet their debt obligations. Although Mexico was not the only indebted country, 1982 marks the beginning of the recognition of a 'debt crisis' in Latin America.

Latin America is the most indebted region of the world. Eleven of the seventeen most highly indebted countries in the world are in Latin America (World Bank, 1988, Vol 1, p. xviii).

Table 1 summarizes the increases in debt levels in Latin America. The level of debt-servicing as a percentage of exports increased substantially between 1970 and 1987, averaging 4 per cent of growth every year from 1970 levels (unweighted average). Only Haiti and Panama had lower servicing levels in 1987 than in 1970. All the other countries showed increases in those levels (5 per cent per annum on average, excluding Haiti and Panama). The increases in debt levels are most significant after 1975. The average (unweighted) annual growth in levels of debt-servicing for all the countries of the region increased from under 2 per cent between 1970 and 1975, to 5 per cent between 1975 and 1980, and to 6.5 per cent between 1980 and 1987.

The likelihood of an impact of the external debt on educational finance is due to the adjustment programmes undertaken as a response to balance-of-payments difficulties. Structural adjustment involves reductions in government expenditure as a means of curbing domestic aggregate demand. Governments may implement adjustment programmes voluntarily or under pressure from international financial institutions in order to receive more loans.

Once governments are faced with the fact that they have to cut their spending, the next decision is what and how much to cut in each sector. According to Lourie (1986, p. 10):

> The consequence of the economic 'crisis' is that education (considered by economic planners as part of the 'soft' social sector) needs to face the demands of domestic austerity measures and in particular compete with priorities given to both export promotion and military spendings, notwithstanding demands made by the production and infrastructure sectors.

Several studies have shown a negative effect of the debt and the adjustment process on education in Latin America.

In a paper discussing the impact of the adjustment of education in the world, Lourie (1986) pointed out that the impact had been on the rates of growth of expenditure rather than on total levels of expenditure in most countries. He further noted that with declining GNPs, even a modest growth of the education share, which did not keep up with growth of the school population resulted in declining net resources per pupil (Lourie, 1986, p. 6).

One study analysed the social effects of the debt in Mexico and concluded that education was one of the hardest-hit areas. In a single year (1982/83), educational expenditure fell from 5.5 to 3.9 per cent of GDP and from 9.3 to 7.9 per cent of the total government budget (Dieguez, 1986, p. 16). A similar report for Costa Rica concluded that 'during the crisis [of 1981/82] drop-out rates increased and enrolment rates decreased' (Vedova, 1986, p. 7).

Psacharopoulos and Steier (1987, p. 3) directly examined the hypothesis that high debt-service payments result in reductions of public expenditure on long-term social investments such as education and health. The authors conclude that the reductions in education as a percentage of government expenditure in Latin America are related to the increase in government servicing of the debt. Prawda (1989, pp. 182–93) analyses how the ballooning share of debt-servicing in the Mexican budget led to a decline in the share for education and in expenditure per pupil. Tibi (1989) showed

TABLE 1. Changes in levels of debt servicing in Latin America as a percentage of exports

	Debt servicing				Annual growth in debt servicing			
Country	1970	1975	1980	1987	1970-75	1975-80	1980-87	1970-87
Argentina	21.6	22.0	16.6	45.3	0.37	-5.48	15.42	4.45
Bolivia	11.3	15.3	27.9	22.1	6.25	12.77	-3.27	4.02
Brazil	12.5	17.9	34.6	26.7	7.45	14.09	-3.64	4.57
Chile	19.2	27.2	21.9	21.1	7.21	-4.24	-0.53	0.56
Colombia	11.6	10.8	8.9	30.7	-1.42	-3.80	19.35	5.89
Costa Rica	10.0	10.7	16.8	12.1	1.36	9.44	-4.58	1.13
Dominican Republic	4.1	4.7	10.3	16.3[1]	2.77	16.99	7.95	9.01
Ecuador	8.6	4.4	18.9	20.7	-12.54	33.84	1.31	5.30
El Salvador	3.6	9.0	3.3	19.4	20.11	-18.18	28.79	10.42
Guatemala	7.4	1.8	2.4	24.9	-24.63	5.92	39.68	7.40
Haiti	16.7	4.6	4.9	5.1	-22.73	1.27	0.57	-6.74
Honduras	2.8	4.7	10.1	23.0	10.91	16.53	12.48	13.19
Mexico	23.6	24.9	32.1	30.1	1.08	5.21	-0.91	1.44
Nicaragua	10.5	12.0	16.0	10.9[1]	2.71	5.92	-6.20	0.23
Panama	7.7	5.9	6.0	6.5	-5.19	0.34	1.15	-0.99
Paraguay	11.8	9.3	10.2	21.3	-4.65	1.86	11.09	3.54
Peru	11.6	25.6	31.1	12.5	17.15	3.97	-12.21	0.44
Uruguay	21.7	41.2	12.4	24.4	13.68	-21.35	10.15	0.69
Venezuela	2.9	5.3	13.3	22.4	12.82	20.20	7.73	12.78

1. Figures for 1986.
Source: World Bank, 1988.

how the pressures that act on government budgets led to cuts in government expenditure in several Latin American countries.

Using data for the countries of Latin America,[1] I have examined elsewhere the association between levels of external debt and public expenditure on education (Reimers, 1988, 1989*a*, 1990*b*). Combining time-series analysis with several case-studies, this research concludes that the impact of debt on education is not automatic. Of particular importance in this impact are the adjustment policies adopted by many governments in the 1980s. The principal conclusion of these studies is that the influence of debt (via structural adjustment programmes) on education is not linear. It had a negative impact in the 1980s, the decade of the debt crisis. Another paper discusses the role of politics and of organizational and bureacratic factors in the formulation of the government budget in the disproportionate reductions in education (Reimers, 1990*a*).

Reductions in educational expenditure

What has been the impact of the adjustment programmes implemented during the 1980s on government financing of education? Table 2 shows that the annual growth-rate of constant expenditure on education was substantially higher before 1980 than afterwards. In all the countries examined constant educational expenditure grew, on average, by 6.99 per cent per annum between 1970 and 1979 (unweighted average). After 1980, however, that growth became negative: -0.01 per cent on average. The effect of the debt was thus to slow down the rate of growth of educational expenditure. Even though there are no net reductions in many countries, in most of them the expansion of educational expenditure flattens out during the period of highest debt levels.

These reductions in the rate of growth of ex-

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penditure (with rising student populations) have led to net reductions in expenditure on education per capita as can be seen in Table 3. Between 1970 and 1980 per capita expenditure on education decreased in real terms only in Paraguay. By contrast, between 1980 and 1988 per capita expenditure decreased in real terms in fifteen of the nineteen countries examined. On average (unweighted) per capita expenditure on education by central government increased by 3.38 per cent in the 1970s but decreased by 2.39 per cent in the 1980s.

Changes in the structure of educational budgets by type and level of expenditure

Another study analysing the changes that occur in the distribution of expenditure showed that during the adjustment phase of the 1980s there were increases in the proportion of current educational expenditure. The number of countries in which the percentage of current expenditure increased in the period was seven in 1970–75 and 1975–80 but fourteen in 1980–86. The unweighted average yearly growth-rate increased from negative growth between 1970–75 and 1975–80 (meaning a higher percentage in capital expenditure) to a positive of almost 1 per cent of the base, which is a significant amount considering the high levels of these figures (Reimers, 1989*a*, p. 24). This suggests that the more recent years of the adjustment phase have seen a lesser percentage of development expenditure on education.

The next question is: proportionately more current expenditure on what? There is no uniform pattern in the changes in the percentage of current expenditure for teachers' salaries between 1980 and 1986. In some countries there is growth; in others there is decline. The picture is more consistent in regard to the percentage of expenditure for teaching materials. In all countries but Ecuador and Venezuela there are significant reductions, to the point that by 1986 most countries spent less than 1 per cent of their current budget on teaching materials. The rate of decline of this indicator averages about 10 per cent per annum. There are again variations in the portion of the current budget for scholarships. Half of the eight countries for which we have data show reductions, while the other half show increases in this item. The levels of variability are restricted, since by 1980 scholarships already represented a very small portion of the current budget (Reimers, 1989*a*).

The distribution of expenditure by level of education shows no uniform pattern for all the countries of the region. There are more countries in which the relative levels of expenditure on primary education have declined since 1970 than countries where those levels have increased. There are more countries where the proportion of expenditure on primary education has declined in recent years. There are also more countries where the proportion of expenditure on higher education has increased since 1970 than countries in which it has decreased. Between 1970 and 1986 eleven countries increased the percentage of expenditure on higher education, whereas this figure decreased in only five of them. Comparing the annual growth-rate of primary with that of higher education between 1980 and 1986 for each country, we see that in ten countries primary education suffered more than higher education, whereas there were only five countries in which higher education suffered more than primary education (Reimers, 1989*a*).

The disproportionate impact of the adjustment on the lower levels of the system can be illustrated with data from Costa Rica (Table 4). Expenditure on basic education declined in real terms at an average of 4.78 per cent per annum between 1980 and 1987, whereas in higher education the decline was only 0.25 per cent per annum on average over the same period. As a percentage of the total education budget, expenditure on basic education declined from 63 per cent in 1980 to 54 per cent in 1987 whereas expenditure on higher education increased from 34 to 40 per cent.

Table 5 shows that although real expenditure

TABLE 2. Changes in central government educational expenditure (in constant 1980 national currency units) before and after 1980

		Educ annual expenditure			Annual growth (%)	
Country	Period	Before 1979	1979	After 1980	Before 1979	After 1980
Argentina	1976-86	330.00	415.66	376.49	8.00	-0.01
Bolivia	1972-84	2.35	5.30	5.51	12.32	0.01
Brazil	1970-86	46.00	107.86	145.34	9.93	0.04
Chile	1972-86	10.00	44.08	38.75	23.60	-0.02
Costa Rica	1972-86	1 103.63	2 516.00	2 122.24	12.49	-0.02
Dominican Republic	1973-86	122.25	154.49	123.01	3.98	-0.03
Ecuador	1973-85	5 339.10	7 913.00	12 142.60	6.78	0.07
El Salvador	1970-87	183.47	292.60	149.77	5.32	-0.08
Guatemala	1972-79	99.00	109.33	109.34	1.43	
Honduras	1972-79	114.55	182.52	182.53	6.88	
Mexico	1972-87	46.65	119.21	81.94	14.34	-0.05
Nicaragua	1972-80	565.06	498.65	734.00	1.77	
Panama	1973-86	137.39	163.60	225.85	2.95	0.05
Paraguay	1972-86	4 486.57	7 003.67	6 544.72	6.57	-0.01
Peru	1972-82	152.93	107.17	169.90	-4.95	
Uruguay	1972-86	1 705.88	1 784.31	1 412.04	0.64	-0.03
Venezuela	1970-86	4 082.80	9 863.90	10 908.30	10.30	0.01

1. The third column (before 1979) contains the expenditure on the beginning of the series indicated in the second column (period); the fourth column (1979) contains the expenditure in 1979. The fifth column (after 1980) contains the expenditure at the end of the series indicated in the second column. The sixth column (annual growth before 1979) is the average annual percentage growth in expenditure between the beginning of the series and 1979. The last column (annual growth after 1980) is the average annual percentage growth in expenditure between 1979 and the end of the series.

The figures are given in the following units: Argentina, australes (thousands); Bolivia, bolivianos (thousands); Brazil, cruzados (millions); Chile, pesos (billions); Costa Rica, colones (millions); Dominican Republic, pesos (millions); Ecuador, sucres (millions); El Salvador, colones (millions); Guatemala, quetzales (millions); Honduras, lempiras (millions); Mexico, pesos (billions); Nicaragua, cordobas (thousands); Panama, balboas (millions); Paraguay, guaranies (millions); Peru, intis (millions); Uruguay, new pesos (millions); Venezuela, bolivares (millions).

Source: International Monetary Fund, *Government Finance Statistics Yearbook* (several issues).

per student decreased at all levels of education, this decline was sharper in primary education (averaging 7 per cent per annum) and smaller in higher education (averaging 2 per cent per annum). In 1986 expenditure per pupil on primary education was 65 per cent of the 1980 figure. At the secondary level expenditure per student was 74 per cent in secondary-general, and 77 per cent in secondary-technical, education of the 1980 figures. In higher education it was 90 per cent.

Conclusions and implications

This article supports the hypothesis that the priority given to education by Latin American governments has diminished during the current economic crisis, which we have discussed as the 'debt crisis', and the adjustment programmes that followed.

The immediate implications of this rising of the debt for education is a slowing down of development of education in each country. Given the continued population growth in Latin America, and the fact that the expansion of the last twenty years had a qualitative trade-off, the implications are the same: other things being equal, the external debt has checked the ability of the education system to continue expanding the supply of education or improving its quality.

It is also important to recognize that the impact of the adjustment goes beyond effects on government financing, that it also affects households. The crisis may increase the opportunity cost of sending a child to school and thus affect the demand for education. These effects can

TABLE 3. Central government expenditure on education per capita by country, 1970–88 (1988 US$)

	Per capita expenditure			Annual growth rates		
Country	1970	1980	1988	1970–80	1980–88	1970–88
Argentina	30.25	63.82	37.20	7.58	-6.52	1.06
Bolivia	25.45	37.35	13.11[3]	3.98	-16.00	-4.04
Brazil	16.46	17.36	37.07[3]	0.54	13.42	5.20
Chile	87.20	100.30	62.95[5]	1.42	-5.66	-1.79
Colombia	20.29[1]	36.68	39.99	6.80	1.09	4.07
Costa Rica	62.05	148.40	87.16	9.11	-6.44	1.91
Dominican Rep.	26.72[2]	31.43	15.09	1.82	-8.77	-3.31
Ecuador	25.31	83.79	42.83	12.72	-8.05	2.97
El Salvador	29.92	38.25	26.81[5]	2.48	-6.86	-0.73
Guatemala	28.44	33.58	32.85	2.10	-0.31	0.97
Haiti	2.92	3.86	3.35[4]	2.83	-2.78	0.93
Honduras	25.80	28.62	38.29	1.04	3.71	2.22
Mexico	35.56[1]	89.03	73.13[4]	10.73	-3.86	5.28
Nicaragua	34.38	40.14	30.30	1.56	-3.45	-0.70
Panama	84.71	133.70	145.50[5]	4.67	1.22	3.24
Paraguay	14.89	6.44	15.10[5]	-8.03	12.93	0.08
Peru	49.72	51.48	38.60[4]	0.35	-3.59	-1.67
Uruguay	63.55	64.42	59.78	0.17	-0.93	-0.38
Venezuela	153.10	193.30	165.30[5]	2.36	-2.57	0.48
Unweighted average annual growth				3.38	-2.39	0.83

1. 1971 $.
2. 1972 $.
3. 1986 $.
4. 1985 $.
5. 1987 $.

Source: Inter-American Development Bank, 1989.

have a particular social bias to the extent that the poor suffer more from the adjustment.

For example, in Costa Rica between 1980 and 1986 the number of students in secondary education decreased by 2.79 per cent per annum on average (Reimers, 1990*c*). Although this could reflect actual decreases in the number of children in this age cohort during those years, it may also be due to more youngsters entering the labour force to contribute to household income. From 1979 to 1982, 'non-heads of household increased their labour-force participation from 57.3 to 63.5 per cent for men and from 23.6 to 26.7 per cent for women. As a result, in 1981 and 1982, twice as many persons in the labour force were seeking work for the first time as was the case in 1979 and 1980' (Fields, 1985, quoted in Vedova, 1986, p. 7).

In addition to reductions in output, which could be expected from reductions in fiscal resources in the education sector, there may be an additional decline stemming from changes in the mix of inputs, which can lead to reduced technical efficiency. Cuts implemented with a short-term focus on political expediency (cut what is easiest to cut) lead to deterioration of school buildings, lack of teaching materials and support for students and to disproportionate cuts in those types of education with less ability to oppose them (for example, primary education, quality of education in rural areas).

We have discussed in this article the reductions in capital investments in education and in the 'soft' portions of the education budgets, that is, those not protected by contractual agreements with teachers' unions. The analysis of the change in the structure of educational expenditure suggests that higher percentages of the bud-

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TABLE 4. Educational expenditure by level of education in Costa Rica (in constant 1978 colones)

	1980		1982		1984		1986		1987		
	Colones	%	Colones	%	Colones	%	Colones	%	Colones	%	Annual growth (%)
Basic	1 189	62.68	533	56.16	633	53.10	825	52.88	847	53.68	-4.78
INA[1]	69	3.64	34	3.58	79	6.63	107	6.86	103	6.53	
Higher	639	33.68	382	40.25	480	40.27	628	40.26	628	39.80	-0.25
TOTAL	1 897	949	1 192	1 560	1 578						

1. Instituto Nacional de Adultos.
Source: *Memorias de la Contraloría General de la República, Costa Rica.*

get are going to recurrent expenditure. Among the countries examined there is no uniform pattern in the changes in the percentage going to teachers' salaries and scholarships. But there are significant reductions in the percentage of current expenditure on teaching materials.

Basic education may be less protected from the adjustment process than higher education. This is not surprising given the trends of educational development in Latin America over the last twenty years, but it is worrying given the uneven income distribution structure of those societies.

The impact of the debt crisis on government educational expenditure operates in two ways: directly by reducing availability of foreign currency for the education system; indirectly through the adjustment process, which results in reduced real educational budgets.

The direct impact of the adjustment on the educational inputs which are purchased with foreign currency should not be underestimated. Foreign currency is used to purchase very specialized inputs for educational provision. They can range from advice by international consultants to specialized equipment, training and journals, or they can provide the resources for key members of the educational bureaucracy to maintain contact with international networks. Since these inputs are often the least visible part of an education system, it may seem that their absence will not have significant effects. Yet their effects can be just as important as those resulting from restrictions on other more visible inputs. An example is science labouratories virtually paralysed owing to lack of material or equipment. Libraries may also have to cancel their subscriptions to international journals because the cost in foreign currency is beyond their budget. Educational researchers or policy-makers may have, by necessity, to cut their professional contacts with colleagues in other parts of the world because they can no longer participate in institutional exchanges, attend conferences or even read what is published elsewhere.

The effects of the adjustment, however, are felt mostly through educational budgets failing to keep up with inflation. Several studies have shown that one of the destabilizing correlates of debt in Latin America is hyperinflation (Mallon, 1988; Sachs, 1986). As a result of inflation real educational expenditure decreases, while nominal educational expenditure increases. In the short term, current levels of education supply need not be affected to the extent that staff are not laid off; but the impact may soon be felt in

TABLE 5. Real expenditure per student by level in Costa Rica (in 1978 colones)

	1980	1986	Annual Growth (%)	Ratio 1986 to 1980
Primary	1 629	1 064	-6.85	0.65
Secondary general	2 218	1 642	-4.89	0.74
Secondary technical	4 055	3 122	-4.26	0.77
Higher	12 629	11 375	-1.73	0.90

Source: World Bank, 1989.

TABLE 6. Average teachers' salaries in Costa Rica (in 1975 colones)

	Primary		Secondary general		Secondary technical	
Year	Salary	Growth (%)	Salary	Growth (%)	Salary	Growth (%)
1975	1 840		2 398		2 361	
1980	3000	10.27	3042	4.87	2945	4.52
1986	1 978	-6.71	1 804	-8.34	1 761	-8.21
Ratio 1986 to 1980	0.66		0.59		0.60	

Source: Sanguinetty, 1988, p. 18.

the form of limits on recruitment and in the quality of education provided by low-paid teachers.

For example, data from Costa Rica show that average teachers' salaries underwent a net reduction between 1980 and 1986 in primary and secondary education. Whereas salaries of primary-school teachers increased on average by 10.27 per cent per annum between 1975 and 1980, they declined 6.71 per cent per annum between 1980 and 1986. In 1986 salaries of primary-school teachers were 66 per cent of the 1980 figures. 'By comparison, in the rest of the economy, real wages, after a 30 per cent decline in 1981/82, have recovered by the end of 1987 their pre-recession levels' (World Bank, 1989*b*, p. 7). The minimum legal wage was 15 per cent higher in real terms in 1985 than in 1980 and 55 per cent higher than in 1976 (Vedova, 1986, Table 16).

In Mexico salaries for primary-school teachers decreased in real terms by 34 per cent between 1983 and 1988, and salaries for primary-school head teachers decreased by 40 per cent over the same period. The reductions in salary are larger for teachers with higher levels of education (Prawda, 1989, p. 197).

Even if teachers of the same quality continue to be attracted by the reduced salaries (which may not be the case if the impact of the adjustment on teaching salaries is greater than it is on alternative occupations with comparable educational requirements), their need to supplement earnings with additional jobs may affect the quality of their teaching. In a review of the policy implications of the studies of the International Association for the Evaluation of Educational Achievement (IEA), Husén (1987, p. 40) concludes that time is crucial to promote learning, including teachers' preparation of lessons.

The need for management reforms in response to the new financial scenario

Management reforms are called for in this new financial situation. The education system needs to adapt to these reductions in the levels of public finance with a long-term focus on efficiency and equity rather than with the quick-fix, short-term perspective examined here. Otherwise, reductions in financial inputs will inevitably mean reductions in the efficiency and/or equity of education provision. The fact that the education crisis described here has a fiscal origin does not necessarily mean that the solutions have to be confined to financial reforms.[4] Although much can be done in this field to tap new sources of finance (Schiefelbein, 1986) a systemic response to the fiscal constraints would require looking for policy options in the field of management as well. The rationale for management reforms is that better utilization of scarcer resources may preserve the efficiency and equity of education. Better management may provide the environment to improve the technical efficiency of the mix of inputs. Management reforms can also increase the ability of ministries of education to implement these financial reforms and to develop policy options to respond effectively to the

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crisis.

For example, one of the problems discussed in this article is the fact that the crisis may affect the poor disproportionately. For some this could reduce their opportunity to send their children to school, because of the need for all family members to contribute to household income. An effective government response to preserve equity would be programmes for the disadvantaged, such as the school-lunch programme implemented in Brazil and recently adopted in Venezuela. But the success of these programmes depends on effective implementation, which requires highly competent organizations. Management reforms should try to build up those competences.

One of the critical issues to implement policy changes that may improve educational management seems to be how to create the conditions under which the existing information, data and research become relevant in the decision-making process and how to create the conditions that will allow the education ministries to learn from their own experience. A study of the Mexican Ministry of Education gives a good description of a common problem in Latin America (McGinn et al., 1983, p. 266):

> The ability of the Secretaria de Educacion to learn from year to year is limited by certain structural features. A serious problem is the lack of organizational memory. The Mexican political system is characterized by constant turnover, between and within *sexenios* [six-year terms of office] of high-ranking officials. A good proportion of high officials in the Secretaria were appointed in the middle of the *sexenio* and did not have previous experience in educational planning or management. The desire of each new government to leave their own mark, leads to structural reforms that make policy continuity difficult. Lack of evaluative information about the education system makes accurate diagnosis impossible, with the consequent risk of duplication of past mistakes.

A similar conclusion is offered in a study of the reform efforts in Colombia and Venezuela in the 1960s and 1970s (Hanson, 1986). In Brazil, Garcia has shown how a minister of education a year on average (fifty-four ministers since 1931) leads to discontinuities in policies and plans (Garcia, 1987, p. 10).

Lack of continuity in education policy is an expensive proposition for ministries with declining budgets and may discourage the exploration and adoption of creative reforms to cope with the effects of the adjustment. The creation of the conditions that would allow administrative continuity seems to depend on a political commitment from the state, as illustrated by the Colombian experience with financial decentralization in the 1970s (Hanson, 1986). The desire of an incumbent president or party may provide the impetus to start a reform effort, but more important is the commitment of the political establishment to allow administrative continuity once that president or party leaves office.

Within the ministry of education an emphasis on programme and project allocation would be desirable to facilitate planning and evaluation. The scarce literature investigating the education budget process in Latin America confirms that programme allocations are not used even when formally required (McGinn et al., 1983, p. 263).

Educational management by maximizing the use of information

Organizational change should be induced in ministries of education to develop managerial excellence. The perennial problems of patronage and corruption need urgent corrective action since their cost to society will surely be larger in times of scarcity. This type of intervention will probably face resistance given the size and complexity of the ministries and the weight of bureaucratic traditions.

An option in developing a professional bureaucracy is to provide job security and administrative continuity that will allow the development of an 'organizational memory'. Personnel stability should of course depend on technical competence and on having the skills to perform effectively. The climate created by the cuts creates the need for skills to make persuasive claims for resources in an environment of increased competition with other sectors (industry, agriculture) within the cabinet. Garcia's (1986, p. 16) depiction of the education ministry as a weak organization with little ability to negotiate succesfully with other government institutions is certainly applicable to other countries elsewhere. One of the calls of Lourie (1986, p. 13) to the international community as a response to the financial crisis was to develop highly skilled personnel in the ministries of education:

> Educational planners must learn to produce and dispose of the financial and economic tools necessary for negotiations with overall planning, financing and monetary decision-makers in order to prove – and not simply state – (1) that cuts in educational outlay are harmful for the nation in the long term, (2) that better management of available resources (school locations, staffing recruitment and in-service training) are conducive to savings.

A complementary option is to increase the administrative skills of educational administrators, so that they can do their job better. Alternatively, the participation of technically competent people in the system could be promoted. The type of technical skills that are called for to resist a 'culture of cuts' may go beyond the traditional profile of the educational planner or manager (Hallak, 1989). Skills in the traditional areas of planning need to be supplemented with skills in negotiation, communication and evaluation. The focus of skill development should be to produce planners and administrators who will be concerned with implementation rather than with plans or theoretical exercises. Implementation of educational change requires good planning but it also demands attention to clients, implementors, tasks, politics and the process through which decisions are made. Furthermore, effective implementation requires continued organizational intelligence in respect of changes under way as well as the institutionalization of those changes (Warwick et al., 1989). The other options for reform discussed in this paper are geared to develop that kind of organizational intelligence.

A third option is to modernize information systems. Timely and accurate information flows are necessary for policy analysis that reflects the education system's range of options and tracks implementation of policy choices. Such systems can benefit from computer hardware and software that enhance the capability of data-processing and communications. But it is important to recognize that the technology is only part of a system of which the human element is the principal component. Modern computer technology will result in modern information systems only if the information so processed becomes relevant to the decision-making and implementation processes. This requires that the people at various levels in the system are both able and willing to interact with modern systems of information processing and transmission. These systems can help process educational data into information useful for policy analysis and planning.[1] Some types of information that could be computerized are: (a) educational costs and finances; (b) efficiency ratios (promotion, repetition, dropping out); and (c) student-achievement data.

The importance of an up-to-date efficient system of educational statistics is evident. Such statistics provide the indicators to monitor the working of the education system and to assess the impact of policy changes. Nowadays the availability of low-cost computer equipment makes it easier to establish management information systems that close the gap between decision-makers and automated data bases. This, together with the increase in the speed of computer processing and the development of user-friendly educational-planning software, makes it easier to incorporate an accurate knowledge base in policy dialogue exploring educational scenarios.

Many statistical offices in education ministries are not familiar with technological developments in this field. As a result, educational managers and top decision-makers are handicapped by having to rely on out-dated statistics. Information on the output of the education system (levels of educational attainment of the population, literacy) is frequently a decade old. The most basic data on student achievement, which would allow monitoring the impact of the adjustment or to assess the cost-effectiveness of different policy options, are a rare commodity in most ministries. A positive exception is the effort undertaken in 1986 in Costa Rica to collect student-achievement data systematically.

The development of information systems is an area which could benefit from international assistance. I have proposed elsewhere that monitoring the impact of the adjustment is an area in which agencies such as UNESCO could contribute by providing the kind of information that would help national policy-makers gain a better understanding of this impact and use this information to negotiate with their governments to resist this impact (Reimers, 1990*b*, 1990*d*). Lourie and Reiff (1988, p. 34) have proposed the development of national data bases on basic education as part of an international strategy to promote education for all. An agency such as UNESCO could develop an expert system that would have at least two components.

First, a knowledge base referencing existing research on the impact of adjustment on education. At the recent congress organized by UNESCO in Mexico City on the planning and management of educational development, I discovered how much information escapes the conventional educational international or regional data bases. Given available technology in relational data bases developing a topical knowledge base is a low-cost proposition with great potential to support an international network of researchers and research-users in this field.

Second, a publication with selected indicators documenting the human costs of adjustment, along the lines of the *World Development Report* or the *State of the World's Children*, with specific indicators for all countries. A critical approach would be to report these figures at a level of disaggregation sensitive to the disproportionate impact of the adjustment on certain social groups (rural-dwellers, the poor).

An expert system of this kind to monitor the impact of adjustment would serve not only those in the international community interested in the subject, but also national decision-makers interested in recovering a long-term focus in the implementation of adjustment programmes.

Another type of information useful for decision-making is the assessment of the implementation of educational innovations in the past or studies examining the effect of policy-related variables on educational output such as learning or efficiency rates. This type of information broadens the scope of policy options to be considered and allows the system to learn from the experience gained in the implementation of those innovations or reforms. In Latin America there is an excellent network for information and documentation on educational research (REDUC). This network, co-ordinated by the Centre for Research and Development of Education (CIDE) in Santiago, includes twenty research centres in Latin American countries and publishes the *Resumenes analiticos en educacion* (Abstracts of Educational Research). This is a useful tool for facilitating access to research and documentation concerning educational innovations carried out in Latin America. Evaluations comparing REDUC with international data bases (ERIC) conclude that REDUC is superior in several respects and more relevant for decision-making on educational policies in Latin America (Reimers and Villegas, 1984). The fact that national centres associated with this regional network already exist makes it relatively easy to develop and strengthen the links between the ministries of education and this live memory of the educational experience of Latin America.

State-of-the-art reviews of research on education in the region, such as the volume on primary education prepared by Muñoz and colleagues (Muñoz, 1988), should become essential discussion material in the development of policy options.

Systematic use of innovation research, evaluation and planning

Another option for administrative development would be to incorporate innovation research (to identify cost-effective systems), evaluation and rational planning as crucial ingredients of the decision-making process. Unfortunately, support for educational research activities may have diminished as a result of the adjustment discussed here. A similar pattern is to be observed in the growth of research publications in Latin America as in the growth of education expenditure. The average number of articles summarized in the *Resumenes analiticos en educación* for each of the Latin American countries increased by 83 per cent between 1976 and 1979, increased by 9 per cent between 1979 and 1981 and decreased by 5 per cent between 1981 and 1984.

A recent study on the use of research-based information by educational decision-makers concludes that there is a loose link between the two (Corvalan, 1988). The new scenario of reduced fiscal resources calls for a radical change in the traditional linkage (or lack thereof) between educational research and policy in Latin America. Educational decision-makers need information from reliable and valid studies on the cost-effectiveness of different potential interventions to develop policy scenarios. Research and policy analysis units should be set up as advisory bodies at the highest levels of decision-making in the education ministries. This new relationship also requires a shift in research tradition and focus from topics of academic or disciplinary interest into areas of direct relevance for policy. The study of variables which can be influenced by policy should be the primary focus of these research units. Given that studies on social science research utilization by policy-makers show that the quality of the research is an important determinant of its use (Weiss and Bucuvalas, 1980) the research produced by those units should be of the highest quality.

There are many policy questions and issues for which solutions have to be invented. Among them are:

What forms of community mobilization are feasible and functional in order to increase private contributions to education?

Who can contribute what and how can those contributions be elicited?

What forms of educational administration increase efficiency?

How can the cost-effectiveness of education-provision systems be increased?

What types of educational technologies would increase output with the same or a lower input?

Increasing private contributions is an area where many innovative options could be explored. Their impact should be assessed not only in terms of the additional resources they bring in, but also of their impact on external and internal efficiency. Some of the options that could be explored are: student participation in school maintenance and cleaning, already common in Japan (Visalberghi, 1986, p. 248); community participation in school building and improvement; participation of the school in the production of goods and services; direct and specific taxation of industries which benefit from the training received by those they employ.[6]

Another area in great need of innovation is that of organizational arrangements that will help establish the 'professional bureaucracy' and decision-making system of educationists described above. Among the approaches to be examined could be the role of participatory decision-making, or greatest two-way communication between teachers and planners at the central level.[7] I argued above that the reform efforts to meet the crisis must be systemic not unidimensional. More efficient communication will help to preserve the quality of education, particularly if innovative policies in the provision of education are to be implemented. The climate of budget constraints (the 'culture of cuts' described above) may be too receptive to innovations that will reduce unit costs to the detriment of the quality of the education provided. Adequate feedback channels (from teachers to evaluators and planners, for instance) may facilitate correction of innovations with significant detrimental effects on quality. An example of this type of participatory approach to educational planning is the Los Santos experiment in Costa Rica. The planners go to the communities and listen to their needs, involving them in the design of the curriculum. Preliminary reports of this experiment suggest that it has reduced drop-out and repetition rates (Pinto, 1989).

Although the constraints resulting from the adjustment are essentially financial, this does not mean that their solution is solely of a question of fiscal reform. Coombs and Hallak (1987, p. 6) have emphasized the importance of maintaining a systemic approach in designing changes to cope with reduced government finance for education:

To obtain a full and accurate picture of the reality they are concerned with, educational cost analysts must view an education system as a system, that is, as a dynamic, organic whole composed of many interdependent parts (subsystems). They must also be constantly aware that any significant change in one part of the system, for example, a change in the proportions of its inputs or the intensity of their use, or a change in its technology, organization, or management, is likely to have substantial repercussions on other parts of the system, and almost certainly on its future costs and efficiency. By the same token, if any important component of the system is missing, the performance of the system as a whole is bound to suffer.

The option of reducing unit costs by increasing the intensity of use of facilities or teachers (larger schools, increased pupil/teacher ratios) or using teaching technologies to minimize labour costs should be evaluated in terms not only of their cost-reducing potential but also of the function of schooling. If such a function is something different than providing a space for children for a certain number of years it may be important to evaluate the impact of the proposed changes on the performance of the school in regard to that function. Husen (1982, p. 51), for instance, has been very critical of the use of teaching machines or increases in school size to reduce costs, on the grounds that those innovations reduce the inter-personal contacts essential to the process of social education.

Of course, the conservative alternative is equally harmful given the new economic realities. Assuming that 'the old times were the best times' in terms of educational quality would be wrong. The status quo in educational technologies has no special virtue apart from the fact that its limitations are known. But the fact that the apparent success in high gross enrolment ratios hides many stories of failure for many repeaters and drop-outs, and even for many who graduate less than well equipped for productive jobs and fulfilling lives, should be an incentive to explore alternatives to traditional ways of teaching and organizing the schooling experience. Different curricula and approaches to teaching, different schedules, part-time education and work-study combinations are innovations that should be explored, particularly to reach those who have been least served by traditional education.

The Latin American debt crisis has certainly had an impact in the economic, political and social spheres. The impact on each one will in turn feed back into the others. In this sense, the negative effect on education discussed in this article is likely to have a consequent negative effect on medium- and long-term economic, political and social development.

The challenge for those concerned with achieving a better future for the people of Latin America is how to mitigate the negative short-term effects of the debt crisis. A major area of action is certainly the solution of the debt problem itself, but it may be a long time before significant improvements are apparent in this area. Direct action is also needed to protect sectors such as education from the adjustment process.

Quick-fix solutions of making budget cuts where it is easiest, as has been done in most countries examined here, will result in reduced efficiency and increased inequities in education provision. The debt crisis calls urgently for major policy initiatives to preserve the contributions to economic, political and social development of education. Management reforms are among the options offering a long-term solution to the problem of how to use the diminished resources more efficiently.

The major challenge for the Latin American governments is to promote partnership and responsibility between different social groups to make the necessary policy changes politically feasible. ■

Notes

1. Second Conferencia Internacional Crisis y Calidad de la Educación. University of Monterrey, Mexico. October 1989.
2. In Latin America the regional ministerial meetings provide policy frameworks that influence specific policies designed by each country.
3. By traditional Latin America I mean the countries of the region sharing the same historical and institutional heritage, namely the Spanish-speaking countries, plus Brazil and Haiti.
4. For a discussion of the need for systemic response in the fields of finance, management and redefinition of objectives of education, see Reimers, 1989*b*.
5. For an interesting discussion of the differences between data and information, see McGinn and Schiefelbein, 1978.
6. For a research agenda on the financing of education, see Schiefelbein, 1983.
7. For a discussion of relevant issues concerning different forms of decentralized management, see McGinn and Street, 1986.

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Education, work and employment in developed countries: situation and future challenges

Henry M. Levin and Russell W. Rumberger

Virtually all the advanced industrialized countries are in the process of examining their education systems to see if they will meet the challenges of the coming decades. In many cases there is at least a hint of alarm because of future economic uncertainties caused by such changes as a fully integrated European Community and the rapid rise in economic power of such newly industrialized entities as Brazil, the Republic of Korea, Taiwan, Singapore and Hong Kong. In many markets for sophisticated technological products, Japan has replaced the United States and Western Europe as a leading producer, and emerging economic powers like the Republic of Korea and Brazil show every indication of undermining even Japan. At the same time, North American and Western European nations have every intention of winning back markets to maintain traditionally high standards of employment and income.

In almost every case, education is considered to be a key to maintaining or regaining economic progress and competitiveness. The developed countries cannot compete with the developing ones on the basis of wages without creating drastic reductions in income and working conditions. Therefore, it is argued that they must aim for much higher worker productivity that will merit higher wages while ensuring competitive prices and products. Such a strategy assumes a need for greater technological investment, streamlined organizational structures, and a focus on products which require a flexible and highly trained workforce. A crucial part of this strategy is the formation of a supportive educational strategy both in the formal education system and in job training by enterprises.

Of particular concern is the view that education must adapt to the use of new technologies. With the advent of technologies based upon microprocessors, new communications technologies, robotics, and biotechnology, it is argued that the labour force must adapt to new workplace demands. All these technologies make possible the emergence of new products and expansion of new occupations, while cre-

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ating changes in working methods in many of the more traditional occupations. Some features of the new technologies are so automated that it is possible to shift such production techniques easily to less-educated work-forces in industrializing countries where lower wages and less demanding working conditions prevail. Indeed, the multinational enterprises of the industrialized societies are constantly choosing between industrialized and industrializing nations in terms of where to make productive investments. And such enterprises continually weigh whether the education of their labour forces in the industrialized nations justifies the higher wages received by their workers.

This article considers some major issues that the industrialized countries face in terms of educational planning and decision-making in a world of economic uncertainty and technical change. Most of the specific analysis will refer to the situation of the United States, but many of the concerns apply more generally to all of the developed countries. In order to place our analysis in context, we present some basic data on educational and occupational distributions of the major industrialized countries with attention to employment and wage issues. This information provides a foundation for the ensuing discussion and analysis. The second part of the article addresses issues that arise on the demand-side of labour markets that must be considered in educational planning. The third section discusses the determinants of the supply of educated labour, and the fourth section deals with some educational consequences of the previous analysis. The final section suggests some potential directions for educational planning and policy among the developed countries.

International comparisons

Although we speak of the industrialized countries as if they were homogeneous, they are anything but monolithic. Since we provide some detail on the situation of the United States, it is important to place the American experience in the overall context of the industrialized world. The United States is similar to other industrialized countries in many respects, yet important differences exist as well. This section briefly describes those similarities and differences.

EMPLOYMENT AND UNEMPLOYMENT

One important difference between industrialized countries concerns job creation. Since 1970, the United States, along with Canada and Australia, has produced new jobs at two to three times the average rate for all industrialized countries (Table 1). During the 1970s, for example, the United States created 20 million new jobs, a 26 per cent increase from 1970 compared to an average increase of 11 per cent for all industrialized countries. Similarly, in the 1980s, the United States has added 13 million new jobs, a 13 per cent increase from 1980 compared to 6 per cent for all industrialized countries.

These figures on employment levels refer to official government estimates based on national employment surveys of individuals and business establishments. They tend to exclude individuals who operate in what has been called the 'underground economy': *sub rosa* employment agreements that avoid tax and social-security payments or more permanent labour contracts, illegal activities (drug and arms trafficking), bartering and other activities that are not systematically monitored by government agencies (Feige, 1988; Tanzi, 1982). In general, countries that impose rigid conditions on employment contracts with respect to changes or termination will have a larger number of persons in unconventional employment relationships including 'underground' arrangements which are not included in the data. The result is that differences in underground activity between nations can bias comparisons of employment growth rates.

Unemployment rates also differ markedly between the industrialized countries. In 1970, the unemployment rate in the United States was much higher than in other industrialized countries, 4.9 per cent compared to an average rate of 2.6 per cent for all industrialized countries. Since 1970, the average unemployment rate for all industrialized countries has increased, reaching 5.2 per cent in 1980 and 7.4 per cent in 1987. But an important shift has taken place between the United States and other industrialized countries, especially those in Europe. Unemployment rates in the largest European industrialized countries (France, Federal Republic of Germany, Italy and the United Kingdom) have surged dramatically in the 1980s. In contrast, the unemployment rate in the United States has fallen below the average for all industrialized countries, though it remains substantially higher than those of Japan and Sweden, countries that have had historically low rates.

TYPES OF JOBS

All industrialized countries have experienced similar shifts in the types of jobs produced in their economies. One major shift has been the growth of jobs in the service sector and a decline in jobs in the manufacturing sector. Manufacturing employment declined by an average of 3 per cent in the major industrialized countries in the 1970s. The United States, Canada, and Italy actually increased manufacturing employment during this period, while all remaining countries experienced declines. This trend has continued during the 1980s, with all industrialized countries except Japan showing continuing declines in manufacturing employment.

In contrast, employment in the services sector, which includes retail and wholesale trade, financial services, government, health and business services, has surged. Employment in the service sector in the major industrialized countries increased by an average of 25 per cent in the 1970s and by an average of 10 per cent in the 1980s. Since the types of jobs found in the service sector generally differ from the types of jobs found in manufacturing, employment shifts among industrial sectors have important implications for education and training policies, as the discussion below points out.

But, what is happening to the quality of jobs that are being created in the industrialized nations? Are the new jobs similar in wages and skill requirements to existing jobs in these economies? The American case, which has generated intense debate, will be discussed in some detail below. The limited availability of comparable data makes it difficult to draw any firm conclusions about differences between industrialized countries in the quality of jobs being created. In general, Western European nations have not increased employment as rapidly as the United States, but earnings levels have been maintained relative to the United States where rapid job growth has been associated with an absolute decline in average real wages (Freeman, 1988) and a proliferation of low wage jobs (Bluestone and Harrison, 1988). Recent figures on part-time employment suggest similar trends among industrialized countries: there has been some increase in the proportion of part-time workers, while the proportion of involuntary part-time workers appears to have declined in recent years (Ginnekin, 1986; Moy, 1988). Yet for the United States at least, involuntary part-time employment has grown much faster than full-time employment over the period 1979-87 (Levitan and Conway, 1988).

One should be cautious in drawing straightforward inferences from these comparisons. Some have argued that the explosion in employment in the United States is attributable to its flexible labour markets with few encumbrances on the conditions and duration of employment contracts (Coe, 1985). In support of this interpretation is the fact that real wages have fallen relative to those in Western Europe and Japan. But, it is clear that the expansion in employment in the United States has also been fuelled by record deficits in the federal budget and in the balance of payments, factors that are unrelated to labour-market flexibility and that may have particularly pernicious long-term consequences.

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Even though employment as a percentage of population and hours of work increased in the United States at a faster rate than in Western Europe, the annual increase in gross domestic product was about the same. This means that Americans had to increase employment more to gain only the same increase in living standards of their European counterparts, and many of the new American workers were additional family members who were induced to enter the labour market to augment the low incomes of heads of household. Finally, the enormous expansion of employment in the United States has been accompanied by greater inequality in family income even after adjusting for changes in demographic factors, such as smaller family size and the growth of households headed by women (U.S. Congressional Budget Office, 1988; Thurow, 1987). Thus, we must be cautious in inferring the causes of rapid employment expansion in the United States and in assuming that such expansion had only positive consequences and was the result of labour market flexibility.

LABOUR SUPPLY

Of course, both levels of employment and unemployment depend upon labour supply as well as demand. Issues of labour supply concern the quantity and quality of the labour force seeking employment. Here again there are important similarities and differences among advanced industrialized countries.

The number of persons in the labour force is a function of the working-age population and labour-force participation rates. Among industrialized countries, population growth rates have been quite variable, with the United States, Canada and Australia having much higher population growth rates than Japan and the industrialized nations of Europe. For example, the 18-to-64-year-old population increased by 14 per cent between 1975 and 1985 in the United States, 18 per cent in Canada, 9 per cent in the Federal Republic of Germany, and 5 per cent in the United Kingdom (Ginneken, 1986). Trends in labour-force participation rates have been similar among industrialized countries: participation rates have generally declined for males and increased for females, though substantial differences remain in female participation rates. Of particular importance to the increasing labour supply in the United States is the high level of immigration from Asia and Latin America.

The education levels of workers vary considerably between industrialized countries. In the United States and Canada, more than one-third of all persons in the labour force have completed at least one year of post-secondary education. In other countries, the percentages are much lower: France 8 per cent, the Federal Republic of Germany 14 per cent, and Japan 18 per cent. In contrast, a much larger percentage of labour-force participants have completed only primary schooling in France and Japan than in the United States, Canada, or the Federal Republic of Germany. Yet in virtually all industrialized countries, enrolments in post-secondary education continue to expand, which will lead to further increases in the education level of workers.

Demand for educated workers

It is widely seen that the demand for educated workers is rising and will continue to rise in all the industrialized societies. This view is usually premissed on the dramatic shift from manufacturing to services that has characterized the industrialized economies as well as the increasing reliance on such technologies as microprocessors, robots, biotechnology, and new communications technologies. In this section, we discuss the demand for educated workers by focusing on some of its major determinants.

The changes in demand for educated labour depend upon changes in the level and composition of demand for goods and services, changes in the relative cost of educated labour, and changes in technology and organization that affect the relative productivity of educated labour in comparison with less-educated labour and/or capital (Welch, 1970).

DEMAND FOR GOODS AND SERVICES

The production of some goods and services requires more educated labour than the production of others. As the demand for goods and services moves from traditional agricultural commodities and mass-manufactured products towards the services and sophisticated and customized products, there will be a higher demand for educated labour, particularly labour with university training. At the extreme, research and development and professional services require workers with substantial education, usually postgraduate training. At the opposite extreme, traditional agriculture and low-level manufacturing require largely unskilled labour. In general, the demand for goods and services has become more education-intensive in terms of production inputs, though there has also been an expansion of low-level service occupations, such as waiters and shop assistants, a matter that is discussed below.

A related issue is that of the competitive position of a country in world trade and its sales and purchases in international markets. Some of the demand for a country's goods and services will be satisfied through imports. The question of the level and composition of imports and exports depends crucially on their prices relative to those of similar domestically produced goods. Since prices in international trade depend upon both national productivity and exchange rates, both can influence the patterns of trade with respect to overall levels and the education-intensiveness of their composition among different goods and services. In general, the industrialized countries' exports tend to be more education-intensive than their imports. But, as technology in micro-electronics and related industries makes it easier to employ less-educated workers, technology transfer enables an increasing shift of formerly education-intensive production to the less-developed countries. Such shifts are currently taking place. In general, new technologies are creating new international structures of production whose implications for the employment of educated workers cannot be fully forecast in a rapidly evolving situation (O'Connor, 1987).

COST OF EDUCATED LABOUR

A second influence on the demand for educated labour is its cost relative to that of other productive inputs such as other types of labour and capital. In the United States real labour costs have fallen over time, with greater declines among workers with less education than for college or university graduates (Berlin and Sum, 1988, p. 9). There is no corresponding evidence of a decline in capital cost. Indeed, labour costs have not kept pace with rises in labour productivity, and labour compensation has fallen as a proportion of national income. The relative and absolute decline in real labour costs has induced employers to substitute labour for capital in production, partially explaining the rapid rise in employment.

CHANGES IN PRODUCTIVITY OF EDUCATED LABOUR

A third influence is the effect of changes in technology and organization of the work-place on the relative productivity of different types of labour. Although most discussions of the new technologies presume that their sophistication requires a demand for more education, this is only true if such technologies are embodied in forms of capital that are a complement to education. Surely, many applications of technology require better educated and trained workers. However, technology can also be used as a basis for capital investment that is a substitute for education. The sophistication of microprocessors can be used to reduce the educational requirements for jobs by substituting the measurement, manipulative and analytical capacities of hardware and software for these human qualities. This issue is addressed below.

A related development is the shift from traditional organizations with a detailed division of labour to one that has less hierarchy and more worker participation in decision-making in order to increase productivity. This type of shift tends to increase the skill and educational requirements of workers, even in the absence of technological change, but it has particularly important implications in conjunction with the application of new technologies (Levin and Rumberger, 1987). The participative work organization is becoming more prominent in all of the industrialized countries in automobile and electronics manufacturing and in other products and services. Instead of just following a repetitive routine, workers are expected to make decisions about product quality, scheduling of production, training and job rotation, and to address problems that arise in production. Especially important is the ability to use information in an information-rich and computer-mediated environment to address production needs (Zuboff, 1988). These tasks require basic skills in numeracy, literacy and reasoning, as well as the technical knowledge, communication skills and problem-solving skills that are associated with relatively more education.

PROJECTION OF FUTURE JOBS AND EDUCATIONAL NEEDS

The factors discussed above (technology, international competitiveness and work organization) all influence the kinds of jobs being produced in advanced economies and therefore have important implications for education and training. While it is impossible to predict precisely the extent of these changes and their specific impact on education and skill requirements of jobs, it is possible to examine past trends and current forecasts to get some idea of what jobs may be like in the near future. We will examine these developments drawing on a variety of data and literature for the United States.

For the aggregate economy, changes in the skill requirements of jobs stem from two factors: (a) changes in the composition of jobs in the economy, and (b) changes in the skill requirements of individual occupations. Changes in the composition of jobs in the economy, such as employment growth that favours high-skill jobs over low-skill jobs, can increase aggregate skill requirements in the economy even if the skill requirements of individual occupations do not change. Similarly, changes in the skill requirements of individual occupations, such as increased skill requirements stemming from the increased use of new technologies, can raise aggregate skill levels even where there are no changes in the composition of jobs in the economy. The issue of whether skill requirements of jobs are increasing or decreasing has generated a great deal of debate in the United States as in other industrialized countries. In the American case, the debate has been fuelled by conflicting empirical evidence. What does the evidence say?

CHANGES IN THE COMPOSITION OF EMPLOYMENT

Most of the evidence on changes in the composition of jobs in the United States comes from official employment forecasts of the United States Bureau of Labor Statistics (BLS). Every two years, the BLS develops detailed projections of future economic activity, industrial growth, and employment within industries and occupations based on an elaborate econometric model (U.S. Bureau of Labor Statistics, 1987). While such forecasts are always subject to some error, reviews of past forecasts show they are reasonably accurate in predicting overall trends and relative growth rates among major industries and job groups (Goldstein, 1983; U.S. Government Accounting Office, 1985; Fullerton, 1988). The latest projections cover the period 1986–2000. Thus they provide a glimpse of the future job market in the United States over the next decade or so.

Employment forecasts for the American

TABLE 1. Employment, employment growth and required education for the fastest-growing occupations in the United States, 1986–2000 (numbers in thousands)

	Employment		Job growth 1986–2000		Percentage of total	Required education (years)[1]
	1986	2000	Number	%		
Fastest relative growth (percentage increase)						
Paralegal personnel	61	125	64	103.7	0.3	13–15
Medical assistants	132	251	119	90.4	0.6	13–15
Physical therapists	61	115	53	87.5	0.2	16
Physical and corrective therapy assistants	36	65	29	81.6	0.1	12
Data-processing equipment repairers	69	125	56	80.4	0.3	13–15
Home health aides	138	249	111	80.1	0.5	12
Podiatrists	13	23	10	77.2	0.0	17+
Computer systems analysts	331	582	251	75.6	1.2	16
Medical-records technicians	40	70	30	75.0	0.1	13–15
Employment interviewers, employment service	75	129	54	71.2	0.3	13–15
TOTAL	956	1 734	778	81.4	3.6	
Fastest absolute growth (number of jobs)						
Salespersons, retail	3 579	4 780	1 201	33.5	5.6	12
Waiters and waitresses	1 702	2 454	752	44.2	3.5	12
Registered nurses	1 406	2 018	612	43.6	2.9	13–15
Janitors and cleaners	2 676	3 280	604	22.6	2.8	12
General managers and top executives	2 383	2 965	582	24.4	2.7	13–15
Cashiers	2 165	2 740	575	26.5	2.7	12
Truck-drivers	2 211	2 736	525	23.8	2.5	12
General office clerks	2 361	2 824	462	19.6	2.2	12
Food-counter workers	1 500	1 949	449	29.9	2.1	12
Nursing aides and orderlies	1 224	1 658	433	35.4	2.0	12
TOTAL	21 202	27 404	6 202	29.2	29.0	
Total employment	111 623	133 030	21 407	19.2	100.0	12

[1] Highest level of schooling completed by the majority of employed workers in that occupation as of March 1986.

Source: Silvestri and Lukasiewicz, 1987, Table 3; Tabulations based on the March 1986 Current Population Survey, U.S. Bureau of the Census.

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labour market have been used to argue that new jobs will require higher skill levels than current jobs (Johnston and Packer, 1987, p. 97). Indeed, recent BLS projections show that the fastest growing jobs in the American economy are concentrated in health and technical fields and require above-average education levels, as shown in the top half of Table 1. But such figures are based upon the percentage growth of occupations not their absolute growth. They are misleading indicators of absolute growth in job categories because the fastest growing jobs are typically in new fields that employ relatively few people compared to older, more traditional fields.

These differences are shown in Table 1, where the ten fastest growing jobs based on projected percentage growth rates between 1986 and 2000 are compared to the ten jobs that will generate the most new positions during that period. As the figures illustrate, the fastest growing jobs are concentrated in the health and technical fields which require higher education levels than most jobs. Yet the occupations that are expected to generate the most new jobs (such as sales workers, waiters and janitors) generally require lower education levels. Moreover, the first group of occupations is only expected to generate about 4 per cent of all new jobs, whereas the second group is expected to generate almost 30 per cent of all new jobs. In fact, 30 occupations, out of the 480 that the BLS forecasts, are expected to generate 50 per cent of all new jobs in the United States economy between 1986 and 2000 (Silvestri and Lukasiewicz, 1987).

CHANGES IN THE SKILL REQUIREMENTS OF JOBS

Changes in the composition of jobs in the economy can be forecast with much greater confidence than changes in the skill requirements for individual jobs. One reason is that there are so many different jobs in industrialized economies that vary widely in the tasks that are performed and in the effects on them of technological and organizational change.

It is commonly observed that the rising use of computers and other new technologies in many occupations must be raising the skill requirements of those occupations (Botkin et al., 1984, p. 80). But this assertion does not take account of the fact that most persons who use computers require no special computer skills. For example, warehouse clerks and supermarket checkout staff typically use a computer read-out device to read bar-codes on products as they are purchased, sold, shipped and received. But the use of this device requires no knowledge of computers. Word-processing operators and office workers need only learn how to operate a new piece of office equipment, as they have done in the past, not how to program or understand computers. This training can be measured in hours or days, not weeks, months or years.

A recent study of a national sample of almost 3,000 small businesses in the United States found that the average duration of training for a wide range of computer applications in offices by those without computer skills was only about thirty hours (Levin and Rumberger, 1986). The same study found that interest and enthusiasm, followed by reading and comprehension skills, were far more important for learning to use computers than extensive technical training (Levin and Rumberger, 1986). In general, the many workers in the United States who use computers in their jobs utilize standard computer packages that require very little previous education or training (Goldstein and Fraser, 1985).

Reviews of past studies on the impact of technologies on skill requirements reach the conclusion that past technologies have tended to raise the skill requirements of some jobs, while lowering those of others, with a net result that aggregate skill requirements have not changed much (Spenner, 1985, 1986; Rumberger, 1981, 1987*a*; Flynn, 1988). After reviewing the evidence on the impact of technology on skill requirements, the National Academy of Sciences concluded in a recent report (Cyert and Mowery, 1987, p. 103) that the empirical evidence of technology's effects on skills is too fragmentary and mixed to support confident predictions of aggregate skill impacts. Despite this uncertainty, however, the evidence suggests that the skill requirements for entry into future jobs will not be radically upgraded from those of current jobs.

Of course, the future may not look like the past. One major difference concerns the type of technologies and their capabilities. Whereas many past technologies enabled machines to reduce the physical requirements of work, present and future machines are more capable of displacing the mental requirements of work (Rumberger, 1987*a*). As the Nobel prizewinner Wassily Leontief (1983, pp. 3-4) has pointed out:

> Computers and robots replace humans in the exercise of mental functions in the same way as mechanical power replaced them in the performance of physical tasks. As time goes on, more and more complex mental functions will be performed by machines. Not unlike large bulldozers assigned to earthmoving jobs that could not possibly have been carried out by even the strongest laborers or draft animals, powerful computers are now performing mental operations that could not possibly be accomplished by human minds. Any worker who now performs his task by following specific instructions can, in principle, be replaced by a machine. This means that the role of humans as the most important factor of production is bound to diminish—in the same way that the role of horses in agricultural production was first diminished and then eliminated by the introduction of tractors.

In total, some forces (such as employment shifts) appear to be raising the aggregate skill requirements of jobs, while other forces (such as the deployment of new, advanced technologies) may be helping to lower skill requirements, at least of some jobs. Thus the evidence suggests that the levels of skills required in the job market are unlikely to change appreciably in the near future. What is more likely to change are the types of skills required, as new technologies and new forms of work organization demand different kinds of skills, such as communication and reasoning skills (Levin, 1987*b*).

The supply of educated labour

Projections of job characteristics and skill requirements depend upon assumptions regarding both the demand for and supply of educated labour. The previous section focused on factors that determine the future demand for educated labour in the industrialized countries. The supply of educated labour is influenced by a number of factors: (a) changes in the size of the population; (b) changes in the social composition of the population in terms of age, gender and ethnicity that often imply differences in experience and preparation for jobs; (c) changes in labour-force participation rates of various groups; and (d) changes in the education and training of the various social groups. Drawing on American data we can illustrate the importance of these factors in shaping the supply of educated labour. We shall examine recent changes in the size and composition of the labour force in the United States over the last fifteen years, from 1972 to 1986, and future prospects based on government projections for the period from 1986 to 2000.

LABOUR FORCE CHANGES

The labour force in the United States increased by over 30 million or 30 per cent between 1972 and 1986. This growth resulted from increases in the civilian population as well as an increase in the labour-force participation rate of women. The population (16 years old and over) increased by 36.5 million or 25 per cent, while the labour-force participation rate of the population increased from 60 to 65 per cent, with women increasing their participation rate from 44 to 55 per cent and men decreasing theirs from 79 to 76 per cent (Fullerton, 1987, p. 21).

According to recent government projections, the American labour force will continue to grow in the future, but at a slower pace. The labour force is expected to grow by 21 million or 18 per cent between 1986 and 2000 because of slower population growth and a slower growth in the labour-force participation rate. The population (16 years old and over) of the United States is expected to increase by 24 million or 13 per cent from 1986 to 2000 (Fullerton, 1987, p. 21). The labour-force participation rate is expected to increase over this period from 65 to 68 per cent, with women's participation rate increasing from 55 to 62 per cent and men's decreasing from 76 to 75 per cent. The age composition of the labour force is also expected to change. The number of younger and older workers will continue to decline in the future as it has in the recent past, with virtually all labour-force growth coming from increases in the prime-age population.

The most dramatic change in the labour force is reflected in its altering racial and ethnic composition. The racial and ethnic minority populations in the United States are increasing at a faster rate than the white population because of (a) increased immigration of predominantly minority populations and (b) higher fertility rates of minority females, particularly Hispanics. Although immigration contributed only 17 per cent of the population increase between 1972 and 1979, it contributed 25 per cent for the 1979–86 period and is expected to contribute more than 30 per cent over the 1986–2000 period (Fullerton, 1987, p. 21).

Between 1979 and 1986, blacks, Asians, and Hispanics represented 45 per cent of the increase in the labour force (Fullerton, 1987). Between 1986 and 2000, this proportion is expected to increase to 57 per cent. In other words, the majority of new entrants into the labour force over the next decade and a half are expected to be members of racial and ethnic minorities. Population projections beyond the year 2000 as well as the large concentration of minority students in schools suggest that the proportion of minorities in the labour force will continue to increase well into the next century.

EDUCATIONAL PREPARATION

The reason that these demographic changes in the labour force are so important is that they can be indicative of the educational preparation of future workers. For example, black and Hispanic workers, on average, have lower education levels than whites, so an increase in the proportion of black and Hispanic workers will tend to lower the overall education level of the labour force in the absence of significant changes in the educational preparation of these groups.

To illustrate, fewer than 50 per cent of all Hispanics of 25 years and over have completed more than a high-school education, compared to 75 per cent for whites. Blacks, too, have greater high-school drop-out rates than whites. Conversely, 20 per cent of whites have completed four or more years of college, compared with 10 per cent or less for blacks and Hispanics. Therefore, the increasing proportion of black and Hispanic workers means that an increasing number of workers in the labour force could be inadequately prepared for the kinds of jobs that are coming on to the market.

The educational attainment of minorities should improve in the future, since education levels of younger minority workers are generally much higher than older workers. For example, only 20 per cent of blacks, 25 to 29 years old, have dropped out of high school compared to 40 per cent for all black workers. Similarly, younger Hispanic workers have completed higher levels of schooling than Hispanic workers overall. Consequently, the educational preparation of the future work-force should improve substantially as older, less-educated workers are replaced by younger, better-educated ones.

At the same time, there are other forces that could contribute to lower levels of educational preparation of the future labour force. The increasing numbers of American families living in poverty and the increasing number of female-headed households could increase the number of high-school drop-outs and thus lower the educational preparation of future workers (Levin, 1986; Pallas et al., 1988). Ominously, minority participation and completion rates in higher education have subsided in recent years, partly because of cuts in government support. A continuation of this trend will curtail the growth of education levels among minority populations. That is, not only are high-school drop-out rates for blacks and Hispanics higher than for whites, but a smaller proportion of high school graduates from these groups are enrolling in higher education, and the proportion is actually declining over time (U.S. Department of Education, 1988, p. 174).

Educational consequences

In the last two sections we have tried to capture some of the dynamics of both the demand for and supply of educated labour. There are a number of overall conclusions that we could draw from that analysis. First, the movement towards the application of new technologies is not necessarily associated with rapid educational upgrading of jobs. Such upgrading depends upon whether the technologies are used as a substitute for, or a complement to, higher level skills, and concomitant changes in the organization of the work-place, particularly the move from traditional work hierarchies to worker participation in decisions. Moreover, the supply of educated labour depends not only upon expansion of educational opportunities, but the incentives and other conditions that induce different groups in the population to increase their educational attainments.

In this section we draw out some specific educational consequences of this analysis. First, we explore the educational levels associated with the projected changes in jobs in the United States economy between 1986 and 2000. Second, we investigate two aspects of the relationship between workers and jobs, undereducation and overeducation. Third, we address issues of general and specific skill requirements for the workplace of the future.

ESTIMATES OF EDUCATIONAL REQUIREMENTS IN THE YEAR 2000

Given the shifts in occupations that are projected between 1986 and 2000 in the United States by the Bureau of Labor Statistics, one can make comparisons of educational requirements for jobs between the two periods. In order to do this, we evaluated the distribution of education embodied in the employed labour force for each of almost 500 occupations. Table 2 shows the numbers of existing jobs in each of the major occupational categories in 1986 and the distribution of education among those who were holding the jobs. It should be kept in mind that these broad occupational categories represent summaries of several hundred detailed occupational classifications. We refer to these educational distributions as the 'required' years of education for the broad occupational category. The total refers to the educational requirements for all jobs in the economy at that time.

In order to estimate comparable educational requirements for the year 2000, we used the projected changes in the job distribution that were forecast for that year. We assumed that the educational distribution for specific occupations would be about the same, consistent with our earlier discussion of the literature which suggested that there is no particular trend in terms of rising or declining skill requirements within occupations. The lower half of Table 2 shows the projected educational requirements for major occupational groups and for the total economy for the year 2000. Perhaps the most notable pattern in the table is the relative lack of change. Although the new jobs added to the economy over this period will require higher educational levels than current jobs (Johnston and Packer, 1987), overall educational requirements for jobs in the year 2000 are likely to be quite similar to those at present, a conclusion that corresponds closely to the judgements of the Panel on Technology and Employment of the National Research Council (Cyert and Mowery, 1987, p. 103).

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TABLE 2. Employment and required education of jobs in the United States by occupation group, 1986 and projected to 2000 (numbers in thousands)

	Employment		Required education in years (percentage distribution)				
Occupational group	Number	%	0–11	12	13–15	16	17+
Existing jobs, 1986							
Managerial	10 583	9.5	5	27	23	29	16
Professional	13 538	12.1	2	9	16	29	44
Technicians and related support	3 726	3.3	3	32	37	19	8
Sales	12 606	11.3	16	40	23	16	5
Administrative support	19 851	17.8	8	54	27	9	2
Private household	981	0.9	61	30	7	1	1
Protective service	2 055	1.8	13	43	31	10	3
Other service	14 500	13.0	35	44	17	3	1
Farming, forestry, fishing	3 556	3.2	41	41	11	5	2
Precision production, craft, repair	13 924	12.5	23	53	18	5	1
Machine operators, assemblers, inspectors	7 665	6.9	33	50	12	3	1
Transportation, material handling	4 789	4.3	20	48	29	1	2
Handlers, helpers, labourers	4 273	3.8	41	45	12	2	0
TOTAL	111 623	100.0	18	40	21	12	9
Projected jobs, 2000							
Managerial	13 616	10.2	5	26	24	29	16
Professional	17 192	12.9	2	9	17	29	43
Technicians and related support	5 151	3.9	3	32	37	19	9
Sales	16 334	12.3	16	40	23	16	5
Administrative support	22 109	16.6	8	54	27	9	2
Private household	955	0.7	60	31	7	1	1
Protective service	2 700	2.0	14	43	31	10	2
Other service	19 262	14.4	35	44	17	3	1
Farming, forestry, fishing	3 393	2.6	41	40	12	5	2
Precision production, craft, repair	15 590	11.7	23	53	18	5	1
Machine operators, assemblers, inspectors	6 913	5.2	33	50	12	3	1
Transportation, material handling	5 289	4.0	20	48	29	1	2
Handlers, helpers, labourers	4 522	3.4	40	45	12	2	1
TOTAL	133 030	100.0	17	39	21	13	10

Sources: Silvestri and Lukasiewicz, 1987, Table 3. Tabulations based on the March 1986 Current Population Survey, U.S. Bureau of the Census.

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ARE AVERAGES MISLEADING?

Presumably, we could examine these educational requirements and compare them with the expected distribution of education in the United States in order to determine whether present educational policies are adequate to meet occupational needs. We must be very cautious in doing this for both the obvious reason that the projections are open to some measure of error and the less-obvious reason that employers can adjust their use of educated labour. A shortage of educated labour will be reflected in a high market cost which will induce employers to substitute capital and other inputs for educated labour. They may also expand production in countries with more favourable labour supplies for domestic production. A surplus of educated labour will induce lower costs and the opposite effects. A further concern that is not usually discussed is that an overall statistical balance in the aggregate between educational requirements of jobs and educational attainments of workers may mask a serious underlying problem of both under- and over-education.

UNDEREDUCATION

Undereducation refers to the situation in which members of the labour force do not have the educational experience and skills to qualify even for entry-level jobs or to benefit from training that will provide upward mobility. The United States is now facing a rising demography of students who are considered to be educationally at risk. This term is used to refer to students who by virtue of a lack of resources in their home or community are unlikely to succeed in school as it is currently constituted.

Such students are heavily concentrated among immigrants, racial minorities, low-income and single-parent families, and those with low education. It has been estimated that at the present time about one-third of all students in elementary and secondary school are at risk, and the number is rising because of the high levels of immigration and high birth-rates of at-risk populations as reflected in the previous section of this article (Levin, 1986). A large proportion of students from these groups do not complete secondary school (Rumberger, 1987*c*), a proportion that may be as high as 50 per cent. Even those that do complete secondary school show very low achievement scores, equal, on average, to students with four years' less formal schooling. This suggests that even the amount of education completed among these groups will be misleadingly high.

As jobs have shifted from menial and physical tasks to those in the services, the appropriateness of skills that are learned in school has become a concern, even for lower-level service jobs such as sales persons, waiters, cashiers, office clerks, and so on. These jobs require good communication skills, reasoning, numeracy, and other qualifications that have been set out by employers as well as proper work values and attitudes which have not always been inculcated by the schools and family (National Academy of Sciences, 1984). In addition, upward mobility depends crucially on the ability to learn new skills, which depends, in turn, on the educational foundation at labour market entry. Without these threshold skills, workers from these backgrounds are unlikely to experience success in the labour market (Murnane, 1988). Furthermore, given the dramatic rises, both proportionately and absolutely, in the size of at-risk populations, employers may face a serious and increasing challenge in attracting an appropriate labour force.

This prospect has already alarmed the business community in the United States as well as government agencies (Committee for Economic Development, 1987; U.S. Department of Labor et al., 1988). Although the schools have tried to address the needs of at-risk populations for at least two decades, the efforts have met with only meagre success (Levin, 1986). The gravity of the problem is increasing because of the massive rise in the numbers of at-risk students in school and who will ultimately come on to the labour market. In our view, the response must be substantial and fundamental, moving away from remediation as a strategy and in the direction of acceleration of learning (Levin, 1987*a*). This will not only require a far greater national investment in the education of at-risk students, but it will require a fundamental restructuring of schools and educational activities.

OVEREDUCATION

At the same time that the supply of lesser-educated workers and especially those from at-risk backgrounds may be inadequate to meet the skill requirements of even the least skilled jobs, there may also be an excess supply of most-educated workers, particularly college graduates. This phenomenon has been referred to as overeducation, underemployment or surplus schooling, and has been the subject of considerable research in both the United States and other industrialized countries (Freeman, 1976; Clogg, 1979; Rumberger, 1981; Hartog and Oosterbeek, 1988).

The phenomenon of overeducation is based on the fact that the supply of college graduates is increasing faster than the supply of jobs requiring a college education. In the United States, for example, enrolments in higher education increased threefold between 1960 and 1980, producing a similar increase in the number of workers with a college education (Rumberger, 1984). During the same period, the number of jobs requiring a college education, particularly professional and technical jobs, only increased twofold (Rumberger, 1984). As a result, an increasing number of college graduates were forced to take jobs where a college education was not required. Especially affected were female college graduates. For example, a greater proportion of young female college graduates were employed in lower-skilled clerical jobs in 1980 than in 1960 (Rumberger, 1984).

Although the size of the American traditional college-age population is expected to decrease over the next decade or so government forecasts indicate the number of college graduates will remain fairly constant as more and more older students return to college to pursue their degrees. Official government forecasts indicate that the supply of college graduates available will exceed the number of jobs requiring a college education by about 100,000 per year, or by 1.5 million over the next fifteen years (Sargent, 1988). Such figures could understate the extent of the problem since almost half of all recent college graduates report that the jobs they obtained after completing college did not require a college degree (Braddock and Hecker, 1988).

Overeducation is considered a problem, in part, because it suggests that scarce government resources are allotted towards a system of higher education that is producing graduates in excess of labour-market needs. While such an argument may imply that overeducation, at worst, generates opportunity costs, the evidence suggests more serious consequences. Overeducated workers may be less productive because they are dissatisfied with their jobs and exert less effort than they would in jobs more commensurate with their education and training (Rumberger, 1981; Tsang and Levin, 1985). As a result, individuals suffer from reduced earnings and the economy suffers from reduced economic output (Rumberger, 1987*b*; Hartog and Oosterbeek, 1988). A recent study estimated that each year of overeducation among the work-force of American telephone companies was associated with a net loss in output of about $3,800 million in 1982 (Tsang, 1987, p. 248). In this case, the negative effect on productivity of overeducation relative to the existing needs of the telecommunications industry was shown to outweigh the positive effect of the additional human capital employed. This example suggests that the individual and social costs of overeducation can be substantial.

One strategy for addressing the underutilization of educated workers is to cut social investment in post-secondary education. While such a strategy has been argued by some (Robinson, 1983), others have pointed out that higher education yields a wide range of important social benefits that justifies widespread social investment (Bowen, 1980).

Another approach for addressing the underutilization of educated workers is to establish strategies for raising productivity that draw more fully on worker capabilities. Two such strategies are the moves towards flexible and customized production and towards worker participation.

Customized production

It is widely agreed that most advanced industrialized countries will not have a competitive advantage in producing standardized products with very long production runs. Such products include basic steel and metals, chemicals, electronic components, many household goods, lower-end automobiles and trucks, and other goods that can be produced in a relatively uniform way for very long periods, typically years or decades. Newly industrialized countries such as Brazil, the Republic of Korea, Taiwan, and others, have adequate labour forces and the technical capabilities to produce these goods cheaper than the more advanced industrialized countries. Higher labour costs, work-place safety provisions, and environmental concerns in the latter mitigate against long-term competitive advantages in these products.

The comparative advantage of the more advanced industrialized countries will be their highly educated work-forces and quick adaptation of advanced technologies which will provide the potential flexibility to address the customized needs of different markets. Rather than producing a few products with long production runs, firms would have the capability to meet customers' needs for a large variety of customized products with shorter production runs and high adaptability to the requirements of different clienteles (Piore and Sabel, 1984; Reich, 1985). The availability of such customized products and services will, in themselves, spur the productivity of other firms in the economies. The very high educational attainments of their labour forces will create the basis for adaptability to design and produce a range of customized products and services. Such an economic role will require a flexible work-force with high levels of general skills rather than a repertoire of standardized capabilities that can be applied only to a fixed work-place regime.

Worker participation

A form of change that has been taking place concurrently in the advanced industrialized countries is that of worker participation. A substantial empirical literature has found a positive relation between the existence and extent of worker participation and worker productivity (Einhorn and Logue, 1982; Faxen, 1978; Gyllenhammer, 1977; Jones and Svejnar, 1982; Kelly, 1982). This phenomenon provides greater responsibility and decision-making for workers in such areas as production, training, quality control, personnel selection, and so on. Often workers are organized into teams or semi-autonomous work-groups responsible for producing sub-assemblies (Susman, 1976). Scheduling, recruiting, product quality, selection of equipment, work rotation, and product improvement are all delegated heavily to work-groups.

These strategies have important implications for productivity, with many examples of dramatic improvements. For example, Saab converted its automobile door assembly from a conventional assembly line to a team approach (Logue, 1981). Annual worker turnover declined from 50 to 14 per cent, and quality-control problems diminished as did the need for quality-control inspectors. Annual savings were nine times the annual costs of the change. A major American manufacturer of integrated circuits organized one of its plants according to work teams that made decisions by consensus on work processes (Gustavson and Taylor, 1982). Yields were raised by 25 per cent above those of comparable, but traditional, facilities, and employee turnover fell.

In the United States a failing General Motors automobile plant was closed because of labour problems, low productivity and poor product quality. It was reopened as a joint venture with the Japanese company Toyota to produce a Toyota model to be marketed under the Chevrolet insignia. Production was reorganized using work-groups with considerable shop-floor autonomy, substantial job training, job guarantees, and a just-in-time inventory system. Labour productivity in the plant rose by 50 per cent in comparison with its earlier General Motors counterpart, and productivity was comparable to its Japanese counterpart, despite the fact that 80 per cent of the workforce had been re-recruited from the laid-off General Motors workers (Brown and Reich, 1988; Krafcik, 1986).

Such changes require a reorganization of the work-place with less hierarchy and supervision and a greater scope of discretion for workers. Workers need to be able to solve problems both individually and in groups and to communicate in team meetings and other situations. They also need to be able to interpret available information and to provide leadership and coordination.

NEW COMPETENCIES

The emerging literature on changes in work processes for both customized production and for worker participation suggests a new set of worker competencies. Our detailed review of case-studies in the literature as well as preliminary observations at work-sites under a project supported by the Spencer Foundation on 'Educational Requirements for New Technologies and Work Organization' have identified, tentatively, the following as competencies that workers will need to function effectively in these newer work settings and that can be developed in schools:

Initiative. The drive and creative ability to think and perform independently. This qualification suggests greater school focus on independent endeavours for students in comparison with the present emphasis on school- and teacher-directed activity.

Co-operation. Constructive, goal-directed interaction with others. This qualification argues for increased emphasis on co-operative learning where rewards are provided for co-operative process as well as for the outcomes of that process.

Working in groups. Interaction in work-groups directed towards both short-term goals of efficient task or activity accomplishment and the long-term goal of group maintenance. This dimension can best be achieved by schools that organize learning tasks into group endeavours rather than the extreme emphasis on individualism and individual competition that characterize existing schools.

Peer training. Informal and formal coaching, advising and training peers. The requirement for participating in this process in the work-place seems to be experience in peer tutoring in the schools.

Evaluation. Appraisal, assessment and certification of the quality of a product or service. This qualification suggests that students be given far more experience in grading and evaluating their own work and that of student colleagues.

Communication. The appropriate uses of spoken, written and kinetic communication as well as good listening, reading comprehension and interpretive skills for receiving messages. These skills need to be fully developed in schools in a work-place context as well as in the cultural context.

Reasoning. Evaluation and generation of logical arguments including both inductive and deductive approaches. This requirement contrasts with the heavy emphasis on memorization and rote learning in existing schools.

Problem-solving. Identification of problems, generation of alternative solutions and their consequences, selection of an alternative and implementation of a solution. The inculcation of this qualification requires experience in solving problems that are situated in a more natural, as differentiated from textbook, situation—with both uncertainty and ambiguity of information. Textbook approaches are usually characterized by precise information and a single correct answer rather than multiple possibilities.

Decision-making. Employing the elements of problem-solving on an on-going basis in the workplace. This dimension requires continued practice in problem-solving for choosing among alternatives.

Obtaining and using information. Deciding which information is relevant, knowing where to obtain it, obtaining it and putting it to use. This qualification requires experience in selecting the types of information that are needed for problem-solving and decision-making, obtaining it and using it properly. It can be readily initiated in the school situation.

Planning. Establishing goals as well as scheduling and prioritizing work activities. This dimension has clear school counterparts in choosing activities and objectives and in setting out activities to meet those goals over a specific time horizon.

Learning skills. Cognitive and affective skills that facilitate the acquisition of new knowledge as needed. These qualifications require an orientation on how to embrace new learning situations as well as the inculcation of styles of learning that work effectively for mastering new knowledge.

Multicultural skills. Understanding how to work with persons from other cultures in terms of language, communication styles, and different values. The American labour force is becoming heavily multicultural with its large component of entrants from minority racial and ethnic groups. Study of foreign languages and cultures as well as experience in human-relations activities can be undertaken within the school setting to satisfy this dimension.

Most of these competencies are not the standard ones stressed by elementary and secondary schools in the United States. Although students with university degrees are likely to have more educational experiences in these areas, even in these cases there is little guarantee that workers will be fully capable. We must also keep in mind that all of these competencies are ones that may be required in addition to the standard cognitive and technical skills that we expect of our workers. That is, if firms continue to develop strategies based upon customized production and workplace participation, there will be an increased demand for these types of competencies. Such demands will also tend to utilize more fully the talents of educated workers, but in many cases they may exceed the capabilities of such workers. These requirements also seem to be ones that respond to the needs of small businesses for initiative, creativity, problem-solving, and so on, which is an important concern since small businesses have been extremely important sources of job growth in the United States (U.S. Small Business Administration, 1984).

What is most important is that it is not the level of education that is challenged, but the type of education that workers will need. In the final section we suggest some implications for educational planning.

Implications for educational planning

If the analysis that we have presented is pertinent not only for the United States but for other advanced industrialized nations, there are some general implications for educational planning. The most important findings for the United States are the following.

First, on the average it does not appear that the educational attainments of the work-force will be too low in terms of the levels of educational credentials that are needed to take advantage of changes in the economy. Indeed, there is only a very modest trend towards upgrading of the occupational structure in the direction of higher educational requirements, a change that should not outstrip the tendency towards more education in the labour force.

Second, underneath the aggregate data there is considerable cause for concern with the twin problems of significant segments of the population being undereducated and overeducated for available work opportunities. Persons from educationally at-risk groups such as those drawn from the poor, immigrants, certain racial groups and one-parent families will not achieve either the quality or amount of educational outcome that will prepare them for entry-level employment and upward mobility. At the other end of the spectrum, there are likely to be serious problems of overeducation in that many prospective workers will find that their educational attainments exceed those required by their jobs.

Third, a successful response to the challenge of undereducation will demand a major effort to upgrade the quality of education for at-risk and disadvantaged groups to bring them into the educational and economic mainstream. This effort will require not only more educational investment, but more imaginative approaches to curricula and instruction as well as an integration of schooling with that of other community services to help the disadvantaged (Levin, 1987*a*). It is probably the major educational challenge facing the country.

Fourth, a successful response to the challenge of overeducation can be built on firms' self-interest to increase productivity through customized production and worker participation. Both of these suggest a focus on a different kind of worker, one who is not only prepared in terms of cognitive knowledge, but who also has the abilities to take advantage of a work-place requiring greater participation.

Finally, the major effort of schools must be to address not only what must be learned but how it will be learned. For example, students may need much more experience in group settings through co-operative learning and co-operative problem-solving to prepare them for changing work-places. Peer tutoring may be extremely functional in school as a basis for workers' training other workers in the work-place. Problem-solving as opposed to memorization should become more prominent in school as it becomes more important in the work-place. And as work-places change over the four decades or so of a working life, workers must have the grounding to learn new tasks and new ways of doing work in response to changes in technology, work organization, and new products. Thus, schooling must prepare workers to adapt to change rather than to merely learn what is necessary for working in a stable environment.

Many of these issues have already been discussed in Carnoy and Levin (1985), and more detailed analyses are forthcoming on the basis of the present studies of work-places and schools by Levin and Rumberger (1986). Educational planning must be informed by the major qualitative changes taking place in the work-place and their educational consequences for the schools. Research on these changes and their implications and the translation of that research into planning and practice must remain a high priority in industrialized societies. ■

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Management and administration of education systems: major issues and trends*

Benno Sander

The first concern of this article is to establish guiding principles and criteria for the study of educational administration in different economic, political and cultural contexts. This concern is linked to a defined intellectual position, which implies a concrete commitment to the promotion of a free and just human life in school and society at large. It is on the basis of this commitment to freedom and justice in education and society that this article adopts the concept of the quality of collective human life[1] as the key criterion to guide the examination of the theoretical foundations and the praxeological orientations adopted in educational administration.

Based on this guiding principle, this article examines the theoretical perspectives and praxeological orientations of contemporary educational administration, with special reference to Latin America. It refers to the historical evolution of educational administrative theory and practice, the conceptualization of traditional and new perspectives, cross-cultural co-operation, and collective participation in educational administration.

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A multidimensional paradigm of educational administration

HISTORICAL BACKGROUND

Professional literature on administrative theory in the present century presents a number of classifications of conceptual and analytical contributions to public administration and educational management.

The traditional historical classification tries to group administrative theory into three general management schools of thought: (a) the classical school conceived at the beginning of this century at the time of the consolidation of the Industrial Revolution; (b) the psychosocial school developed during the Great Depression in the late 1920s; and (c) the contemporary school, developed after the Second World War, with a number of different lines of thought. In systems terms, the evolution of twentieth-century administrative theory is analysed in terms of closed systems (1900–60) and open systems (1960–80), each with rational models and natural models.[2] In philosophical terms, administrative theory follows three contending scholarly traditions which reflect three corresponding epistemologies: positivism, hermeneutics, and critical theory.[3]

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* The opinions expressed in this article are those of the author and do not necessarily represent the views of the Organization of American States and other institutions with which the author is associated.

It is also possible to conceive a new classification of administration in terms of four criterion-based models based on efficiency, effectiveness, responsiveness and relevance.

Efficiency

As a management model, efficiency-based administration is conceptually derived from the classical school of administration and is analytically induced from the practice of school executives who behave according to the tenets of general, scientific and bureaucratic management. The classical thesis was expounded at the beginning of this century at the time of the consolidation of the Industrial Revolution. Three major movements were largely responsible for classical theory: scientific management,[4] general management,[5] and bureaucratic management.[6] The protagonists of the classical school conceived of the organization as a closed, mechanical and rational system, in which management was founded upon the criterion of economic efficiency.

Effectiveness

As a management model, effectiveness-based administration is conceptually derived from the psychosocial school of administration and is analytically induced from the evaluation of the practical experience of school executives who adopt the principles of the behavioural approach to administration. In the history of administrative thought, the psychosocial antithesis to the classical school was developed from the time of the Great Depression towards the end of the 1920s. The movements responsible for this development were those of the emphasis on human relations[7] and the focus on administrative behaviour.[8] The protagonists of the psychosocial school conceive of the organization as a partially open, organic and natural system, in which management is concerned with the functional integration of its component elements in light of institutional effectiveness. After the Second World War, effectiveness also became a fundamental criterion of the neo-classicists, who conceived management by objectives.[9]

Responsiveness

As a management model, responsiveness-based administration is conceptually derived from an array of contemporary management theories and is analytically induced from a variety of different practical experiences in public and educational administration during the last three decades. Its major theoretical contributions come from development administration,[10] organizational development,[11] administrative ecology,[12] institutional development,[13] and contingency theory.[14] The protagonists of these contending contemporary movements conceive of the organization as an open and adaptive system, in which administrative mediation emphasizes the situational variables of the external environment in light of political responsiveness.

Relevance

As a management model, relevance-based administration is conceptually derived from recent and current interactionist formulations founded upon phenomenology, existentialism, the dialectical method, critical theory and the human action approach.[15] The adherents of these conceptual and analytical formulations conceive the organization as a holistic and interactional system, in which management emphasizes the principles of consciousness, critical human action, contradiction and totality in light of cultural relevance.

TOWARDS A NEW PARADIGM

Although the four specific models of educational administration, as set forth above, correspond to four historically distinct periods, they often converge in a practical sense. In Latin America, for example, specialized literature describes the current existence of educational systems and institutions of a business nature in which administration is governed by economic efficiency as a predominant criterion with other criteria complementing the primary one. There are other education systems and institutions in which administration is guided principally by pedagogical effectiveness in the attainment of instructional objectives. Other education systems and institutions are more concerned with their political role in the larger community and, for this reason, their administration is primarily based upon the criterion of political responsiveness. Yet other education systems and institutions are concerned fundamentally with the human being as an individual and social actor. For this reason, these latter systems and institutions adopt cultural relevance as the predominant criterion of their administration.

The four specific models can be synthesized into a global paradigm, which is here defined as the multidimensional paradigm of educational administration.[18] Such a global paradigm would be composed of four interacting dimensions: economic, pedagogical, political, and cultural. To each of these dimensions corresponds a respective predominant criterion of administrative performance: efficiency, effectiveness, responsiveness, and relevance.

The conceptualization of the multidimensional paradigm of educational administration is, furthermore, based on three fundamental assumptions. The first is that educational phenomena and administrative facts are interrelated aspects of a global reality. The second assumption is that in the education system there are intrinsic dimensions of a cultural and pedagogical nature that exist alongside extrinsic dimensions of a political and economic nature. The third assumption is that the human being as an individual and social actor involved politically in society constitutes the *raison d'être* of the education system. It is this anthro-sociopolitical concept of the human being that defines the nature and utilization of the multidimensional paradigm of educational administration as heuristic. These concepts, as shown

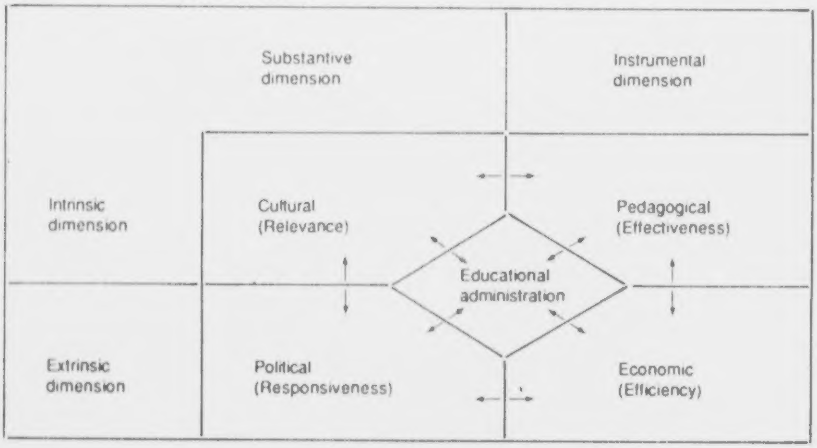

FIG. 1. A multidimensional paradigm of educational administration.

in Figure 1, are reflected in a multicentric system in which two substantive dimensions and two instrumental dimensions interact with two intrinsic dimensions and two extrinsic dimensions.

Economic dimension

The economic dimension of the education system involves financial and material resources, structures, bureaucratic norms, and mechanisms of co-ordination and communication. In this dimension, educational administration is concerned with: (a) the distribution and control of resources; (b) the organization of the institution in structural terms; (c) the definition of roles and responsibilities; (d) the distribution of work; (e) the determination of how the work is to be carried out and by what type of incumbents; and (f) the establishment of norms of action. The defining criterion of the economic dimension is efficiency in the utilization of the financial and material resources, and the technological instruments under the rule of economic logic.[17]

Pedagogical dimension

The pedagogical dimension of educational administration refers to the educational principles, scenarios, and techniques that are intrinsically committed to the effective attainment of the objectives of the education system. In recent decades, the pedagogical dimension of educational administration has been subjected to a process of atrophy as a consequence of the generalized emphasis on considering the education system in terms of economic and technological development. As a reaction to this situation, in some academic environments there has been increased concern with administration as a pedagogical act.[18] The concern of the defenders of the pedagogical dimension is that of attributing to administration the responsibility for conceiving of spaces, methods and techniques that are capable of preserving the intrinsic educational objectives of the school system in its efforts to fulfil adequately its economic, cultural, and political role in society. The major criterion of the pedagogical dimension is the effectiveness in the attainment of educational results.

Political dimension

The political dimension involves the strategies of concrete action of the participants in the education system and its community. The importance of the political dimension is rooted in the specific responsibilities of the education system with respect to society. Its importance also resides in the fact that the education system evolves in the context of varied conditioning circumstances of the environment and is influenced by powerful external variables. If educational administrators are not capable of adequately balancing the powerful relationship of the cultural and pedagogical elements with the external environment they run the risk of closing the education system in upon itself, with loss of political power in the community. Within this dimension, those in educational administration seek responsiveness, a criterion that is essentially political, and according to which the education system is called upon to meet the social needs and demands of society at large.[19]

Cultural dimension

The cultural dimension covers the philosophical, anthropological, biological, psychological, and sociological values and characteristics of the participants in the educational system and society in general. Although the cultural dimension includes many aspects and levels, its basic characteristic is its global perspective. The role of the educational administrator is one of coordinating the action and interaction of the persons and groups who participate directly or indirectly in the educational process of the community. In the cultural dimension, *relevance* is the basic criterion that guides administrative action. Therefore, administration will be relevant to the extent that it fosters the conditions that make it possible to further the quality of collective human life in the educational system and society in general.[10] The basic condition to further a meaningful and qualitative form of human life in education and society is that of participation. Therefore, relevance and participation in educational administration are closely linked together.

The multidimensional paradigm is based on the identification of those diversified dimensions or spaces that make fulfilment of the human being possible, both as an individual and social actor. In the terms of the multidimensional paradigm, educational administrators are guided by substantive and ethical concepts of general validity such as freedom and equity that, in turn, create the organizational framework for collective participation in the furthering of a qualitative form of collective human life in the school and society in general.

ISSUES AND IMPLICATIONS OF THE PARADIGM

The examination of the historical evolution of administrative theories adopted in education and the conceptualization of the multidimensional paradigm of educational administration raises important issues and reveals a number of implications for educational policy and practice. This is particularly evident in developing countries. Taking the experience of Latin America as a case in point, it is possible to account for some important aspects, such as: (a) government and educational administration; (b) changes in educational policies and administrative criteria; (c) centralization versus decentralization; and (d) the training of educational administrators.

Government and educational administration

Educational administration in Latin America is inserted in the context of public administration and regional scientific development. This assumption is a natural corollary of the phenomenon of interdependence between education and society. In this way, many aspects of educational practice and school management can only be understood when examined in the evolutionary context of the government sector and society at large.[11] This is particularly valid in societies where the state plays a central role in the field of education, as is the case in Latin America. This means that it is possible to establish a close parallel between the development of public administration and educational administration in Latin America, as well as in other developing areas and in industrialized nations. In the case of the industrialized countries, whatever the educational role played by the state, when they turn to export their models of educational organization and administration to the developing world through technical assistance they use the mediation of central government. In Latin America, for example, the general theoretical perspectives of public administration, imported from overseas without sufficient relation to the historical process of local development, have a significant impact on educational administration. In the 1960s, this fact was particularly evident in the specific field of educational planning, which was strongly influenced by the theoretical perspectives adopted in government planning and by the overall orientation of economic development planning.

The fact is that economic efficiency and the bureaucratic rationalism of the classical school of administration were widely taught and adopted as universal dogmas and recipes in Latin American public and educational administration. The same is valid for the behavioural orientation of the human-relations movement and the neoclassical trend of management by objectives. Finally, the developmental orientation adopted in comparative public administration towards the end of the 1950s and 1960s in the broader context of political theory invaded the schools of administration and education in Latin America. Welfare economics and government planning were accompanied by the economics of education and educational planning concerned with the preparation of human resources for economic development. In this context, the state played a central role during the post-war developmental period, as the major investor in education in an attempt to respond to social needs and political aspirations of Latin American nations.

Changes in educational policies and administrative criteria

The historical account of organizational and administrative theories adopted in Latin American education reveals constant changes in educational policies and administrative criteria. Latin America initially subscribed to a juridical approach that was essentially normative in nature and closely tied to the tradition of Roman administrative law that characterized public and educational administration during the colonial era.[22] Following that era, the four historical models of educational administration were adopted during the course of the present century, as set forth earlier in this article.

The cult of efficiency, linked to the economic rationalism prevailing at the beginning of the twentieth century, was accompanied by educational policies that emphasized the technocratic and organizational aspects of educational systems with little attention to their human and political aspects. In other words, economic rationalism was accompanied by pedagogical pragmatism and administrative efficiency. In the specific field of educational planning, the cult of efficiency underlies the traditional techno-rational model conceived in the 1960s, in which planning took the form of a normative or rational process and a technocratic exercise. As a reaction to economic efficiency, pedagogical effectiveness, associated with the behavioural theories developed at the time of the Great Depression, came forward as a criterion of administrative performance in education. Educational policies emphasized the human side of the education system. In an attempt to overcome the limitations of economic efficiency and pedagogical effectiveness in education, political responsiveness was developed in light of the post-war international reconstruction effort. In this context, educational policy was primarily concerned with the attainment of social demands and political aspirations. The result was an unprecedented expansion of education systems in Latin America and in other parts of the world. Post-war educational expansion was halted by the economic crisis that affected the world at the end of the 1970s and was further aggravated in the 1980s. Educational policy and administration were submitted to a critical examination worldwide. Social scientists became more and more concerned with the design of significant and qualitative forms of human life in education and society. Cultural relevance has become then the dominant criterion of educational policy-making and administrative performance. In a similar way, educational planners try to overcome the traditional technocratic model and to conceive a more strategic paradigm of educational planning[23] in light of political responsiveness and cultural relevance.

Centralization versus decentralization

The political history of Latin America shows a constant tension between centralization and decentralization in the management of education and society in general. The fact is that there have been continual attempts and a number of forms of administrative decentralization (deconcentration, debureaucratization, regionalization, municipalization, delegation, nuclearization, privatization) as alternatives to the political and administrative centralism that characterized society and education in Latin America during the 500 years of its existence. Nevertheless, centralization, which dates back to the establishment of the independent states of Latin America, and the construction of their national identity, remains a common political feature in the whole hemisphere. Education, which was used by the state as a powerful instrument to achieve independence and to promote national development, as well as to deprive the Church of its historical influence in public affairs, followed the same centralizing model.[24]

For practical purposes, this article examines whether a centralized or a decentralized education system is more efficient, effective, responsive and relevant to promote equity and freedom of access to economic and educational opportunities, in light of the concept of the quality of collective human life. Studies carried out by universities and by intergovernmental agencies reveal that most Latin American governments have adopted different forms of decentralization in education.[16] Examples of experiences include:

Argentina as a case of multiple administration of its education system.

Brazil as a tentative of administrative decentralization by school levels, with a progressive assignment of intermediate education to the provinces and basic education to the municipalities.

Chile as a case of educational regionalization combined with central planning and control.

Colombia as an example of functional and geographic decentralization of educational administration.

Costa Rica as an example of regionalization and deconcentration of the education system based on regional education departments.

Mexico as a case of administrative reform and *agilización.*

Panama as an example of decentralization through the strengthening of educational administration in the provinces.

Peru as a case of nuclearization and progressive geographic decentralization of the Ministry of Education.

Venezuela as a case of educational regionalization as a basis for administrative decentralization.

We could inquire about the reasons behind these and other recent attempts at educational decentralization in Latin America. Those who favour decentralization argue that it facilitates the interaction between education and society, upgrading significantly the degree of responsiveness and relevance of the education system for its participants and the community at large. Decentralization would also move the participants of local communities to search for educational solutions to their problems within their limits, instead of adopting universal solutions (in)applicable to all situations of a country. The defenders of decentralization also argue that a decentralized education system would be economically more efficient and pedagogically more effective than a centralized system.

These arguments, however, are under severe scrutiny in view of the critical assessment of the realities of Latin America and its historical conditioning forces. There is little evidence that government policies on educational decentralization work effectively. Some critics argue that in many cases there is evidence to the contrary.

In economic terms, systematic studies are still needed to establish whether or not there is an empirical correlation between efficiency and decentralization. In pedagogical terms, there is a need to show how a decentralized education system is more effective in countries where the political culture values administrative centralism. Considering that the concept of effectiveness is rooted in neoclassical economic thought, a decentralized education system could tend to favour private education. Critical analysts argue that this orientation is in conflict with the imperative of providing equal opportunities of free public education to the poor. In political terms, it is necessary to show how educational decentralization can be more responsive to social demands and political aspirations in countries with an economic structure and a political organization that do not give adequate fiscal autonomy to provinces and municipalities. In this way, the adoption of a decentralized education system in countries marked by a centralized economic structure and political organization could run the risk of creating abandoned school systems in the marginal urban communities and poor rural municipalities. In cultural terms, there are doubts whether a decentralized education system can be more relevant to its participants and the community at large than a centralized system if adequate economic and political conditions do not exist.

In fact, Latin American countries face a significant deterioration of their economic situation accompanied by constant tensions with the industrialized nations. In addition, the external economic strangling and the impoverishment of national economies in Latin America generate increasing internal conflicts which are mediated by central governments. This means that internal centralization is reinforced by powerful external forces. This centralizing trend has obvious implications for educational policy-making and planning. In addition, educational policies and plans are often prepared by professionals linked to the central power structure and usually committed to urban values. On the other hand, bearing in mind the difficult economic situation throughout Latin America, decentralization can seriously jeopardize equity and increase regional inequalities because of the unequal access to financial resources and educational services.

The debate over centralization versus decentralization in educational organization and administration reveals that there are no pat formulas and easy solutions.[19] Nevertheless, two suggestions seem to be forthcoming.

First, it is necessary to separate educational policy and administrative practice. In order to preserve national identity, it would seem that general educational policy should be national in nature. In this way, a national unitary curriculum should be designed in order to preserve national cultural identity, to strengthen its capacity to pursue scientific advancement, and to provide equal opportunities concerning access to scientific and technological development. To such national curriculum design, local contents should be added in order to preserve the cultural heterogeneity of the country and to attain concrete social needs and political demands. As for educational planning, this orientation lays the grounds for the development of micro-planning within the context of national educational development planning. Again, it is suggested that general national policy guidelines should not be decentralized, in order to avoid the risk of contributing to the weakening of our sense of national destiny and of the presence of modern science in all parts of the country. For the implementation of national educational policies, administrative practice could be more or less decentralized. That is to say that, in each case, we should adopt the most efficient, effective, responsive and relevant administrative strategy to attain the ends and objectives established in the national educational policy, and, at the same time, to preserve the cultural heterogeneity of the country and to fulfil actual local needs.

Second, it is important to clarify concepts and practices so that centralization is not necessarily associated with authoritarianism, and decentralization not necessarily confused with democracy and participation. In effect, in the same way that authoritarianism can coexist with decentralization, democracy and participation can exist in a centralized system. The difference lies in the forms of participation and the practice of democracy. To sum up, it is necessary to look, above all else, to the basis of the national policy of education. Then it is necessary to examine participatory democracy as a form of administrative mediation to attain educational advancement, in the conviction that a participatory form of educational administration is more important than centralizing or decentralizing the system, because a decentralized system need not always necessarily ensure participation, and a centralized system need not always necessarily deny it.

The training of educational administrators

In colonial Latin America, there was little concern over educational administration and hte preparation of educational administrators. In fact, theory-building and knowledge development in Latin American educational administration only began in this century, mainly after 1930. Most publications of the colonial period were general descriptive studies and reports with a normative and juridical approach to educational administration. Usually educational administrators were teachers who had been temporarily released from their teaching responsibilities. This fact explains why the definition of the profile of the educational administrator always included teacher training and experience as the fundamental requirement.

Changes in the traditional profile of the educational administrator were introduced as a result of the expansion and increasing complexity of education systems in Latin America. The redefinition of the profile of the educational administrator was accompanied by the introduction of systematic training policies and practices. The preparation of educational administrators in Latin America has been a government concern for the last five decades. Up to the Second World War, the preparation of educational administrators was part of the general programmes in teacher-training colleges and university faculties of humanities and sciences. Educational administration was just one subject of a comprehensive programme of study. The content of educational administration was influenced by the juridical and normative tradition that characterized organizational studies and government administration.

Following the Second World War, particularly since 1960, schools of education were established in Latin American universities, and professional training programmes for educational administrators were introduced at the undergraduate level. These training programmes emphasized the study of educational administration within the classical and behavioural management traditions. During this period, a number of non-degree tailor-made seminars and courses in educational administration (and after 1958 in educational planning) were carried out by national governments and universities in co-operation with international agencies, particularly Unesco and the Organization of American States. These were the first training experiences in educational administration and planning at the graduate level in Latin America. It was at this time that the International Institute for Educational Planning (IIEP) was established in Paris, becoming, since 1963, a research and training centre of excellence for educational leaders of the developing world.

Systematic graduate education, which started around 1970, represents a new change in Latin American university education and educational administration. At that time, the Regional Educational Development Program of the Organization of American States, established in 1968, had a decisive influence in the development of systematic graduate programmes in educational planning, supervision and administration at leading universities in Brazil, Chile, Colombia, Panama and Peru. Since the beginning of the 1970s, graduate education has been playing a decisive role in changing the traditional normative character of Latin American university teaching to a more analytical approach based on increasing research activities. Given their newness, graduate programmes in educational administration in Latin America have not yet been consolidated in many countries. The prospects, though, are promising in a good many nations. There is increasing entry of professionals from other fields of study, particularly from the social sciences, into graduate programmes of educational administration. This interdisciplinary encounter enhances an unprecedented theoretical and methodological development in training programmes and research projects.

Policy and practice in the training of educational administrators in Latin America follow the general historical development of the social sciences. From the initial normative orientation, training programmes moved to a behavioural content, until reaching a more sociological approach to educational administration. This means that in the current training programmes of educational administrators there are initial indications tending to give precedence to the concepts of cultural relevance and political responsiveness over those of economic efficiency and behavioural effectiveness.

Educational administration in a cross-cultural perspective

The search for new superseding perspectives in educational administration is evident in vanguard intellectual circles of both industrialized societies and developing nations. In this context, there have been recent promising national and international efforts facing the challenge of cross-cultural co-operation in education and educational administration. A number of these efforts, developed by individual scholars and universities, are undertaken through intergovernmental agencies, such as Unesco/IIEP, the Regional Educational Development Program of the Organization of American States, and the Latin American Faculty of Social Sciences (FLACSO).

Cross-cultural cooperation is also fostered by national and international scientific and professional societies, such as: (a) the International Intervisitation Programme in Educational Administration (IIP), which has met every four years since 1966; (b) the University Council for Educational Administration (UCEA) in the United States; (c) the Brazilian National Association of Professionals in Educational Administration (ANPAE), founded in 1961; (d) the Commonwealth Council for Educational Administration (CCEA); (e) the European Forum for Educational Administration, created in 1977; (f) the Caribbean Society for the Study of Educational Administration (CARSEA); and (g) the Inter-American Society for Educational Administration (ISEA), established in 1979. Their international conferences, research projects and publications have been growing as forms of a constructive debate in the field of educational administration across cultures.[27]

The cross-cultural perspective of education and educational administration, especially the study of the transferability of educational models and administrative paradigms across cultures, has particular appeal in the countries of the developing world. In the last decades there has been a strong movement in the developing countries towards the conceptualization of education and educational administration from the angle of the developing world. This creative sociological perspective is originally rooted in the 'theory of dependence',[28] which is primarily concerned with the structural relations that explain the inequalities between and within nations. A good example is found in Latin America, where committed scholars are involved in the construction of new conceptual and analytical perspectives of education and educational administration which are politically responsive and culturally relevant. A number of recent publications on education and educational administration in Latin America within the new vanguard pedagogical tradition have brought an intense debate to the field.[29] In the specific field of educational administration, the new publications in the conflict tradition address critical-dialectical approaches,[30] structural analysis,[31] self-management paradigms[32] and phenomenological perspectives.[33] Although the individual contributions of the protagonists of the new orientation are different, all of them share a critique of the dominant consensus tradition of educational administration. Another common characteristic of the new Latin American theoretical efforts in educational administration is their explicit epistemological orientation. However, going beyond the evaluation of the limits of the foundations of past and current dominant administrative theories, the most creative aspect of the studies is the constructive search for conceptual and analytical perspectives to guide educational administration. Their common concern is the conceptualization of educational organization and administrative perspectives that are culturally relevant and politically responsive to the demands and needs of Latin American society.

The upcoming cross-cultural perspective in education and educational administration is also reflected in meetings and studies carried out in industrialized nations that address the phenomenon of international interdependence in sociology and education. A good example was the Fifth World Congress on Comparative Education held in Paris in 1984, where Michel Debeauvais emphasized educational interdependence and linked its relevance 'to the fact that international exchanges in the field of education have never been so intense and diverse.'[34] In the specific field of educational administration in the United States, the phenomenon was highlighted by Patrick Lynch in his state-of-the-art address on 'Dependency Theory and Educational Administration',[35] delivered in New York at the 1982 Annual Meeting of the American Educational Research Association. Promising research and training developments within the conflict tradition are also taking place in Australia, the United Kingdom and

Canada. The Australian experience in the conflict tradition follows the initiative of Richard Bates's pioneering work on 'a critical practice of educational administration'.[36] In the United Kingdom the new critical-emancipatory research and training efforts in educational administration keep affinity with the work of the new sociologists and critical thinkers of education.[37] The Canadian upsurge results partly from the pioneering critical work of Thomas Greenfield[38] and as a superseding challenge faced by Canadian scholars involved in developing countries.[39]

Recent studies on comparative administration carried out in the industrialized world stem from general development theories coupled with comparative anthropological investigations and organizational studies across cultures. Denis Goulet[40] in the United States and Claude Deblois[41] in Canada conceive similar 'liberation' approaches to development. Their writings override the dominant perspective of the traditional sociology of development and stand out as important sources for specific studies on organizational life and administrative practice. In a similar way as the dependency scholars in Latin America found, the liberation scholars suggest that organization and administrative theories conceived by and for industrialized countries are not transferable and applicable to developing areas, due to the intrinsic economic and cultural differences.

These and other similar contributions have important implications for research, training, and cross-cultural technical co-operation in educational administration. In a cross-cultural perspective, research and training contents and methodologies in educational administration call for constant re-evaluations and reconstructions. The question of the transferability of dominant educational administrative models and practices demands meaningful answers. As culture provides the context in which education is practised, cultural relevance is the major guiding criterion to assess the applicability of organization and administrative theories, as well as planning practices, in the field of education. Such a cultural orientation implies a reconceptualization of national and international technical co-operation in the field. Thomas Wiggins's call for a 'transactional' approach to technical co-operation, as opposed to the traditional 'assistance-intervention' framework,[42] demonstrates an accepted concern in a number of vanguard intellectual circles throughout the world.

To sum up, the search for new educational administrative theories is a challenge to intellectuals in both developing and industrialized countries of East and West. In this worldwide intellectual challenge there is a place for both national constructive efforts and international cross-cultural co-operation. In both cases, cultural relevance and political responsiveness to social and educational needs and demands are basic criteria to guide inquiry and practice in educational administration. The underlying assumption of this orientation is that it can effectively contribute to the furthering of a substantive quality of collective human life in education and society in both particular national settings and in the international context. This brings us to the concept of collective participation as the political strategy to accomplish a substantive quality of collective human life in society, and to further scientific and technological development in education and educational administration.

Towards collective participation in educational administration

My basic assumption is that participation is the right and duty of every member of a democratic society. This suggests that participation and democracy are two closely linked concepts. It is in the context of this association that it is possible to examine the historical role of education and scientific knowledge in general. It is widely accepted that the function of education is the construction and distribution of knowledge. The construction of knowledge implies freedom, consciousness and collective participation. The distribution of knowledge implies an ethical commitment to equity and social justice so that the knowledge thus constructed can be of concrete benefit to the participants of the education system and society in general. It is bearing this in mind that educational institutions are social instances in which it is possible to construct democracy as a political form to foster a substantive quality of collective human life. It is also in this way that the adoption of a participatory form of educational administration is a concrete way of contributing to the construction of democracy in education and society. However, democracy is not the goal of educational and social practice in general. Democracy is the type of political mediation used to attain a substantive quality of collective human life as the ethical goal of both education and society. Therefore, participation in education, particularly in educational administration, is, above all else, a political process, as it is in the governing of society.

There are many specific forms of participation in educational administration, just as there exist many forms of participation in the governing of society.[43] This article argues for collective participation in educational administration. Such a perspective is advanced in the conviction that collective participation can constitute a powerful antidote to the institutionalized authoritarianism of the formal bureaucracy and to the dogmatic action of minority groups.

The conceptualization of educational administration as a process of collective participation[44] makes selective use of, and has an affinity with, the contributions of contemporary critical action theorists in sociology and the philosophy of science,[45] organizational theory[46] and education.[47] In the specific field of educational administration, Neidson Rodrigues's concept of 'collegiate action',[48] Lynn Davies's gender-inclusive model of 'holistic management'[49] and our 'multidimensional paradigm of educational administration'[50] are examples of new participatory management perspectives and deserve an additional reference.

Rodrigues has recently proposed a new form of articulation between pedagogical practice and educational administration based on his concept of 'collegiate action'. Trying to override the traditional centralized and bureaucratic management practices, he proposes a form of educational administration in which the 'collegiate' is the driving force of co-operative collective action in the school. He considers the collegiate, in which all the participants of the school are represented, as the instrument of a democratic form of decision-making. In his view, though, the collegiate is not only an administrative instrument, but a central pedagogical and political instance in the school. The social organization of the educational work based on the concept of collegiate action rejects individualism and unharnessed and self-centred competition, favouring co-operative collective action towards the furthering of a substantive quality of human life in the school and in society.

Davies's conceptualization of 'holistic management' gives special attention to an educational administrative model that is gender-inclusive and culturally relevant. Her critique of traditional educational administrative theory and practice has an affinity with the critical thinkers of education and educational administration. In the construction of her superseding 'holistic management' model she includes both the 'whole staff' and the 'whole person'. As far as the preparation of educational administrators is concerned, her contention is that management training should be opened up to all teachers. This orientation would facilitate collective participation in educational administration. It would also facilitate the democratic alternance and rotation of educational administrators.

Critical human action, political participation and cultural relevance are key concepts of the multidimensional paradigm of educational administration examined earlier. Participation, as a form of collective critical human action, is the political strategy for the attainment of a culturally relevant management practice as conceived in the multidimensional paradigm of educational administration. In adopting cultural relevance as the fundamental criterion, educational administration is appraised in terms of the meanings and consequences of activities for the improvement of the substantive quality of collective human life in the education system and society at large. The perception and interpretation of these meanings and consequences are only possible through an administrative theory conceived on the basis of real experience. This theoretical conceptualization is directly founded upon the participative posture of those responsible for the management of the education system. The more participatory the administrative process, the greater its chances of being relevant to individuals and groups and the greater its possibilities of explaining and furthering the substantive quality of collective human life. It is in the context of this participatory perspective, grounded in collective critical human action, that educational administration can perform a role of democratic mediation that seeks to reach a solid alliance of individual freedom and social equity in the educational system, aiming to develop a form of human experience with cultural and political content.

The cultural and political content occupies a prominent position in the debate over one of the most important and controversial issues in educational administration, that of the preparation and selection of educational administrators for the various educational levels. The fact is that participation in the preparation and selection of educational administrators takes place in many different forms. What is certain is that, in this regard, there are no pat formulas or universally applicable systems of participation in educational administration, just as is the case in the forms of government adopted in different societies, and there is no reason why there should be. Much to the contrary, it is our contention that participation in educational administration is a culturally specific strategy. Therefore, each educational system should determine and adopt its own specific paradigm of participation in order to be culturally relevant for its participants and, at the same time, politically responsive to the aspirations and needs of the population as a whole.

Again, participation in the preparation and selection of educational administrators is a crucial issue that has yet to be methodologically defined. The correct definition of this issue brings us to the concept of education as a particular practice of politics, the latter defined as the global practice of collective human life. As a corollary of the relationship between education and politics, educational administration is a pedagogical as well as a political act. If education is conceived as a particular practice of politics, then there exists, in educational administration, a superordination of the political over the pedagogical. In other words, educational administrators at the different levels and modalities of education are, above all, politicians and, as such, should perform their functions with legitimacy and social responsibility. However, educational administrators should be technically prepared if they are to perform their professional role with political responsiveness and cultural relevance. The lack of technical competence among educational administrators can seriously jeopardize their political and cultural role, while compromising the interests and aspirations of educators, students, administrative support personnel, and the community. All technical activity that affects the interests of the participants in the education system implies political and cultural responsibilities. Therefore, the technical preparation of educational administrators is important, since it is expected to provide them with efficient and effective instruments for the performance of their professional role with political responsiveness and cultural relevance.

Bearing in mind the association of the pedagogical and political aspects of educational administration in its cultural milieu, it is imperative to conceive of a formula capable of combining the technical preparation of educational administrators with the process of their selection by the participants of the educational institution and community representatives. In this respect, the conceptualization of educational administration as a process of collective participation represents an initial attempt to combine free election as a political and cultural strategy, and formal training as a technical requirement. The latter should be subordinated to the former, based on the assumption that the technical criteria of administrative efficiency and effectiveness are regulated by responsiveness and relevance as political and cultural criteria. The recommendation that educational management training should be extended to all faculty members and all prospective teachers is particularly important. The importance of opening management training to all staff members is based on the assumption that such an orientation would enhance collective critical participation in the management of education, whatever the methodology eventually adopted in the selection of educational administrators.

The perspective of educational administration as a process of collective participation is not a point of arrival, but rather a point of departure, among many others, on a long journey. It is not the end of the task, but rather a beginning of the immense task of scientific construction in the field of education.

This article is a particular act of participation in a more ample process of collective construction of knowledge in education and educational administration. It is developed on the basis of an intellectual commitment to the participants in education systems, together with the larger community engaged in the construction of forms of educational planning and administration that respond to the cultural aspirations and political demands of society. Therefore, it is part of a process of collective participation in the fulfilment of a real intellectual commitment. Democratic mediation is adopted as the political strategy, in the conviction that democracy can provide the basic ingredients to link freedom and equity in educational administration, aimed at the construction of an education system and a society founded upon the concept of the substantive quality of collective human life. ■

Notes

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Managing schools for educational quality and equity: finding the proper mix to make it work

Jacques Hallak

> *The right structure does not guarantee results. But the wrong structure aborts results and smothers even the best directed efforts.*
>
> Peter Drucker, 1964

Introduction

In the 1960s and 1970s, centralized administration was generally regarded as reasonably effective in supporting the fantastic expansion of education systems in many developing countries. Existing education administrative systems proved capable of training and recruiting a growing number of teachers, of building and equipping facilities, and of monitoring the distribution of financial and didactic materials and resources.

With the growth in the size of education systems, coupled with the financial constraints of the 1980s and their consequences on education systems, existing administrative and managerial sectors—mostly centralized—seemed to have reached their limits and were suffering from inadequate organizational structures, an incapacity to operate large-scale education systems and, from poor communication channels, to monitor what was happening in the classrooms.

In this connection, we should recall that the style of educational administration generally reflects, and is intricately linked to, the wider system of public administration, thus complicating attempts to reform the education system.

The nature of education is, moreover, such that it is provided by a multitude of small, dispersed and disparate units. In virtually all countries, schools must respond to diverse interests and goals which are often in conflict. Parents'

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associations, teachers' unions and locally elected school boards often have a powerful influence both on the objectives that the schools are expected to attain and on the resources available to schools. Local level priorities often do not coincide with those of the central level. Horizontal and vertical communication channels between the various agencies providing educational services are often blocked.

Responsibility and authority are often not accompanied by adequate resources. In addition, schools have frequently to contend with the pressures generated by the competitive examinations that guard the gates to the various stages of the education system.

Reforming such a complex system represents a major challenge for most governments. As an example, primary education throughout the world has organizational structures which are fundamentally similar: at the base are groups of schools organized in geo-political districts. Almost all schools are managed by a headmaster or principal. In many countries, individual schools or groups of schools are overseen by school boards or parent/teacher associations, some of which have considerable influence. An intermediate administrative organization, the district-level, provides some level of supervision and technical support. At the top of the structure is a national ministry or department of education, responsible for the planning and administration of the education system as a whole, with one department holding principal responsibility, for example, for primary schooling. In larger countries, this structure extends over four levels with the addition of a state education agency or provincial ministry, between the district and the national ministry. Although this three- or four-tier structure basically describes all education systems, there is actually great diversity among them because of the variety of patterns in the distribution of decision-making authority.

Improving school management for quality and equity means improving management at each of these levels, from the highest hierarchical level in the system down to the school, and establishing more effective and rational linkages between the various administrative levels.

Central and intermediate levels of administration: trends and issues

Although it is not easy to generalize on an international scale about trends in education administration, the predominant pattern is that of rather centralized systems: very ineffective entities at both the central and intermediate levels, with some examples of minor devolution of authority and responsibilities to intermediate, local and school levels for curricula, staffing and budget management. Apart from a few exceptions, the major constraints or problems relate to inadequate organizational structures, lack of adequate managerial capacity and ineffective information systems.

In addressing the issue of improvement of management, we should basically take into consideration these dimensions which constitute constraints to managerial and institutional effectiveness.

The most central notion is that of an effective organizational structure. We do not need to go back to the long-standing debate on centralization versus decentralization. Centralized systems have proved most effective in countries characterized by a politically and economically stable environment, strong administrative systems, good infrastructure, comparatively well-educated and compensated teachers, and a relatively homogenous context for schooling. For example, this has been the case in the Republic of Korea and Japan.

However, in countries with long distances between individual schools and the centre, great ethnic and linguistic diversity, and relatively poorly developed transportation and communication systems, rigid centralization blocks resources and information flows and leads to the inefficient and ineffective operation of the system. In such circumstances, education systems are likely to be more efficient and effective if certain functions are devolved to the lower levels. Given the very wide variety of administrative traditions in different societies, it is not possible to prescribe what these functions and responsibilities should be. The challenge is to define criteria for devolving functions and responsibilities while maintaining an overall effective organizational structure.

In this regard, I should like to make a distinction between (i) the central-level, (ii) the intermediate-level and (iii) the local- or school-level.

The central level. Administrative weaknesses generally arise when managers do not have sufficient authority and/or resources to do their job effectively, when communication channels are blocked, when roles and responsibilities are unclear or when managers' time is either consumed with routine tasks or with addressing, on an *ad hoc* basis, requests by the political structure. For those who are acquainted with the subject, the usual picture in many developing countries is all too familiar: a small group of first-class managers, who have little power and have continuously to change their programme of work without clear notions of the agenda to be implemented and the resources to be mobilized for that purpose; there is little or no accountability nor incentives for them to remain in their posts or to undertake major programmes to improve administration and management. This small group is surrounded by some 'old-timers', waiting for retirement and blocking any possibility for upward mobility, and by large numbers of mediocre, untrained colleagues who have escaped from the teaching profession and who may have been excellent teachers but prove to be poor administrators.

The intermediate level. Offices tend to be even more inadequately staffed (which can mean over- or under-staffed), poorly financed and accepting the limitations in their authority to act. Their principal responsibility—at least according to the rules and regulations—is to provide professional assistance and technical support to schools, teachers and principals. The typical district office operates however solely as a 'mailbox', transmitting guidelines, decisions and rules from the central offices down to the lower layers of the administrative machinery. There are, of course, more favourable circumstances, where the intermediate structure operates as an inspectorate, serving as a link in the top-down administrative control of schools, although neglecting its role as a source of professional support. Even under such favourable circumstances, however, there are no incentives to encourage the intermediate levels to report mismanagement, violation of rules, or, on the other hand, the good performance of institutions, requiring rewards or encouragement. Nor are there incentives for the intermediate levels to promote, at the lower levels of the system, initiatives, innovative attitudes or educational experiments with a risk element.

At the local or school level. The mismatch between authority and responsibility is particularly acute. Principals are largely excluded from decisions that affect their ability to improve student achievement. Curricula are designed centrally, often with little attention to the diversity of schools and students' interests. Teachers are very often appointed, assigned and evaluated centrally, leaving principals with little control over the choice or discipline of teachers.

The failure of teacher employment policies to take into account regional and local needs, subject-matter and grade-level needs undermines significantly the ability of principals to build and maintain an effective school environment. Few principals have the authority or the resources to organize staff development programmes aimed at the problems and challenges faced by the teachers in their schools. At best, they may have access to more general programmes created nationally. The lack of full authority at the school level is most prevalent in highly centralized systems but even in more decentralized ones, authority is not always delegated below the intermediate levels.

Given the importance of learning as a joint effort outcome of the school and the community, school managers need to be able to mobilize and use local resources for school improvement especially in situations where central level resources are scarce. However, school leaders are severely constrained in their ability to do this. When central administrative rules and regulations require that funds raised be submitted to the central ministry, this restricts the purposes for which they had been intended.

At the same time, in the absence of testing and monitoring systems which make it possible to assess performance, schools are largely held accountable to rules that govern the use of basic inputs (enrolment allocations, student/teacher ratios, schedules and time allocations, reporting requirements). Such rules are and may be necessary, but obviously they do little to create incentives for schools to focus on interventions that lead to improved student achievement.

The case for school-based management

Given the severe difficulties faced by educational administrations—often attributed to the inherent weaknesses of centralized structures—efforts have been made to find alternative approaches for the administration and management of education. Such approaches have been inspired and have inspired the principle of devolution of authority to lower levels in matters of governance, financial control, content, methods, norms and standards. However, given the difficulties facing some decentralized systems, such as in the United Kingdom and the United States, which also suffer from inefficiency in management, low quality of education, and enormous disparities, more radical alternative approaches to administration and management of education were proposed in the 1980s. One suggestion was to entrust managerial responsibility to the schools. The arguments for school-based management have been basically determined by three sets of ideas.

One set of ideas stems from the fact that effective management is needed at the level where teaching and learning take place—in the school, in the classroom—because quality education requires effective school management. The Thai programme of clustering schools for greater collaboration and co-operation in order to improve the quality of education is a good illustration of school-centred administrative practice.

A second set of ideas is connected with the image concerning the role of the State as a poor manager and provider of services when compared to the private sector. Phrases like 'open, deregulated school market', 'emphasis on parental choice' and 'school competitions' have become commonplace in many countries of Europe and North America where it is fashionable to attack the monopoly of public (government) school services.

A third set of ideas is very much linked to the so-called 'expanded vision' which is shared by a large number of partners of the educational profession and which was adopted by the World Conference on *Education for All*, held in Jomtien, Thailand. This vision has five dimensions:

- the universalizing of access to education and the promotion of educational equity;
- a focus on learning acquisition;
- the broadening of the means and scope of basic education;
- the enhancing of the environment for learning;
- the strengthening of partnership in the planning and implementation of education.

The latter dimension, *the strengthening of partnership*, is considered to be fundamental because of the proven incapacity of central administrative services (money and control) to implement locally, at the school level, centrally designed reforms and innovations. Even if that were not the case, i.e. even if reforms designed centrally could be implemented, these may prove to be irrelevant to local needs. Hence, the need for devolution of authority from central to local levels, down to other actors of the education system.

When the three groups of ideas are combined and the benefits set out, the pressures for local management of schools become irresistible. The type of benefits expected are:

- greater flexibility in utilizing funds;

- increased involvement of various actors in decision-making;
- removal of centralized bureaucratic control;
- increased capacity for innovation, creativity and experimentation;
- potential for economies;
- ability to reallocate resources to meet school objectives;
- greater autonomy in decision-making.

Such expectations may be summarized in three clusters:

- increased efficiency;
- increased quality;
- more democratic and equitable responsibility in the management of schools.

School-based management: major principles, assumptions, conditions

It is difficult to find a consensus view on what is meant by school-based management. The *Australian Thesaurus of Education Descriptors* provides a reasonable basis: 'an administrative system in which an individual school exercises autonomous decision-making on budgets, curriculum and personnel within policy guidelines set by its governing board'.

The main ideas describing what school-based management really is can be summarized in ten points:

1. School-based management may be defined as a change in the distribution of the power structure (decentralization). The school becomes the principal entity of any change in the education system. It is the epicentre for the implementation of educational reforms.

2. The possibility for the school to operate on a relatively autonomous basis and to solve its own problems requires the co-operation of the different actors and the sharing of responsibilities among all those who participate in the life of the school.

3. The professionals at the school have increased responsibility and accountability vis-à-vis the hierarchical structure because the new system implies a systematic use of both internal and external evaluation and assessment, as well as reports on the results of self-evaluation.

4. New structures of participation (forums, councils) are established to enable the interchange and participation of various actors in the running of the school. The actors are the headmaster, the teachers, the parents, the local communities and sometimes the students, as well as representatives of private enterprise from the locality or the region. The participation of teachers is probably the most significant form of change in the distribution of decision-making power in the education system. Teachers are supposed to inspire the necessary reforms which will improve resource allocation. Given the fact that teachers implement most decisions, their role is very important for the success of any reform, because they are able to propose, support or block any improvement. If the personnel of the school has not been involved in the design of the projects of improvement, they will not feel committed to promoting and supporting them.

5. Structures for management assistance and support have to be established. Such structures include a special budget, the preparation of teachers so that they are capable of participating in the management of the school, and increased allocation of time for group work. The delegation and distribution of responsibility in the school for budget, personnel management and curriculum matters are prerequisites for effective school-based management.

6. The success or failure of any improvement depends very much on the conditions prevailing in each school engaged in the very complicated and difficult task of improving its operations and not only on the national policy, global plans of reform or general decisions, as was previously the case. No effective change can take place if it does not take into consideration the specific conditions existing in each school.

7. The improvement of the organizational capacity of each school requires both a clear communication line among the actors and improved group work. The circulation of informa-

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tion is a necessary condition to solving problems; this also requires that decisions be taken collectively. It is therefore essential that the largest number of actors be involved from the outset, that a priority be established as to what are the most important tasks, and so on. This requires, in the first phase, a good diagnosis of how the school operates.

8. Any school reform should be conceived globally and not piecemeal; it has also to involve the institution as a whole and consider all its objectives and its functions. Moreover the school should have the capacity to innovate built into its design and organization.

9. The environment of the school should be a favourable one and this requires transparency, simplicity and the possibility to implement any proposed change.

10. School-based review (i.e. evaluation) by and for the major actors of the school is considered as a necessary condition for improving the operation of the school. It is a very important step in the introduction of any school-based management reform.

In summary, the main characteristics of school-based management which assumes heavy devolution of authority and governance to the schools, can be described in three words: *autonomy, participation* and *self-monitoring*. Promoters of school-based management assume that: (i) these characteristics—*autonomy, participation,* and *self-monitoring*—are compatible with each other; and (ii) that there are mechanisms for reconciling them with the needs and constraints of operating an overall education system in a coherent fashion. In the last sections of this paper, I shall address these assumptions.

Learning from experience

Autonomy, participation and self-monitoring are intimately interlinked features of school-based management. Autonomy—an issue of governance—supposes co-operation between actors, the key to participation, and adequate management structures (budget, personnel, curricula), a pre-requisite for self-monitoring. Participation—also an issue of governance—requires a clear perception of the tasks of the institution in which autonomy is exercised, and adequate communication channels and information systems among the actors involved, which is a central aspect of self-monitoring. Finally, self-monitoring cannot be an end in itself but serves to support the capacity of the school to operate autonomously and provide the required feedback of information to allow meaningful participation.

Although this set of arrangements is conceptually reasonable, experience shows, however, that a number of problems and tensions appear, when applying the school-based management approach with a view to improving efficiency and equity of schools. These relate to the difficulty of reconciling autonomy, participation and self-monitoring.

Firstly, it should be borne in mind that the school is a human organization. This human dimension is very important for an understanding of the quality of schooling and the quality of learning which is given in the school. As autonomy and participation imply, in essence, changes in governance and in the distribution of power among the main actors of the education system, they are bound to generate conflict and competition. A few examples illustrate this argument:

- Decentralization has often suffered from pressures and obstacles from the central office, resulting in disorganization of the system; hence, in the name of participation, central administration has been able to restore authority and control over the schools.
- Autonomy has sometimes generated conflict between two concepts of management: (i) management by the community and (ii) management by the government. A typical case in point is the management of school buildings. In some countries, school buildings are financed mostly by contributions from the local community. Who should decide ultimately on the norms and characteristics of the future school? Is the community ready to invest in a

project which would not remain under its control?

- As we all know, most reforms of education administration systems refer to participation but rarely to autonomy. Even in the most advanced systems of devolution, the State provides very little autonomy to schools in the three key areas of governance: (i) budget, (ii) staff and (iii) curriculum.

Secondly, because schools are human organizations, human resource conditions—including capacity for management, collaborating in decision-making and sharing and using information—are determinant factors for successful school-based management. Unfortunately, in many countries the conditions of human resources are poor and inadequate. In this regard, the active participation of the different actors in the process should not be neglected. This concerns the principals or headmasters, the teachers, the parents, the pupils and the community surrounding the school.

More specifically, the role of the principal or headmaster should not be minimized. The principal is the focus of authority in the school and the crucial link with the outside world. The success of a participatory project depends very much on the attitude of the principal, his readiness to implement a reform, his managerial capacity and his ability to mobilize other actors within the school (teachers, parents, etc.). The quality of education will therefore depend on the nature of the leadership given by the headmaster, in other words, his ability to control, direct and guide teachers. Studies have shown that there is a strong correlation between schools with the highest performance and the quality of the headmaster. For instance, a study from the Republic of Korea shows that, when headmasters feel they have too much responsibility and very little autonomy, and that they are spending too much time in meetings and not enough on academic business, the implications for the schools are very negative.

Another study on Hong Kong shows that headmasters consider that a major obstacle to in-service training is the increase in the workload of teachers. The same study shows that the attitude of headmasters who stick to a centralized policy of management without encouraging participation of teachers generates a sense of rejection on the part of the teachers, lowering motivation and creating a lack of interest and involvement in improving the school.

The participation of teachers in school management has, however, both positive and negative attitudes. On the one hand, the teacher can help the headmaster in his task of directing the school, designing the programme of studies and in decision-making. Participation of teachers and the exchange of information between teachers and the headmaster as well as among teachers have helped improve the quality of teaching. This idea was developed by UNESCO in its regional programme for Asia and the Pacific. On the other hand, increased participation by teachers may be detrimental to the quality of teaching because the time devoted to academic activities may be reduced.

It is also fair to say that, in many developing countries today, most teachers are underpaid and have to work under very adverse economic and professional conditions. In these circumstances, it is important to note that many of them are not motivated and a high rate of absenteeism is a typical pattern in many countries. The question which one can then ask is do teachers really want to have more responsibilities when simply carrying out their own traditional tasks poses problems. Some countries try to address this issue by establishing incentive systems. This is the case in Thailand.

The participation of parents in the life of the school is dependent on many factors: the level of education or training of the parents, especially of the mother, the kind of commitment they feel towards the school and the possibilities they have of participating in the life of the school. The case of Escuela Nueva in Colombia shows how parents can be integrated into the life of the school and be involved in the process of children's education and training. According to several evaluations, the Escuela Nueva approach has many advantages. Firstly, it has enabled the teaching content to be enriched. Secondly, parents feel more concerned about the development of the school and that of their children. Thirdly, the institution becomes a place for an exchange and discussion of educational matters between the various actors of the system.

Another study on Indonesia shows that the social and economic conditions of the parents have a great influence upon the level and type of assistance given to the school. The same study shows that, although parents are not always available to participate in the social life of the school, they are ready to contribute financially to the school. In this connection, the experience of many countries shows that the 'easiest' way of making parents participate in the life of the school is to get them to participate financially.

The role of the pupils has to be defined because they are the fundamental actors of the educational process. The experience of Escuela Nueva shows that, when more advanced students help the teacher in his task, they can work in groups which helps develop a sense of responsibility; they thus become partners in the whole teaching/learning process of the school. This motivates both the children who are active learners and those who are active teachers, thus increasing the rate of school success. In some cases, especially in one-teacher schools, the participation of pupils has reduced the disparity in performance between children.

An interesting example in a very specific case is the programme 'MINDSACROSS' in Uganda which was introduced for textbooks and in which children are involved in the preparation of school textbooks.

Finally, the community is another factor in improving quality, by strengthening the linkages between the school and the social, economic and cultural milieu of the children. The relationship between the school and the community will depend very much on the type of social relationships prevailing in the country concerned. In a closed and hierarchically segmented society, it will be very difficult to establish participatory relationships between the school and the community. Relations will be 'closed' and not very proactive, since the community would either identify with the school which becomes *its school*, or it considers that this school belongs to the government and thus generates the same 'respect', 'fear' and 'expectations' felt vis-à-vis all exogenous institutions. On the other hand, in more open societies, interaction between the schools and the community is easier and more likely to produce highly beneficial results for the school.

Incidentally, what has just been said about the interaction between the community and the school, can be generalized to apply to the other major actors of the education system. The basic question can be formulated in both a negative and positive way. To take the negative formulation first:

> *Is school-based management and its assumption about autonomy, participation and self-monitoring, applicable in societies which are highly segmented, lacking a tradition of participation in public life, with or without high political instability and where a large proportion of the population suffers from illiteracy, marginality, poverty and hence are prevented from being involved in civil life and more specifically in the business of the school?*

In a more positive tone:

> *In increasingly complex societies, is there not a serious danger of keeping education under the sole control of the 'technicians' in education? Is not one of the important challenges for the profession the search for the most propitious climate for participation and involvement of the majority of the population in educational matters?*

Admittedly, without reference to values, cultures, traditions and to the systems for regulating societies, it is very difficult to see how it will be possible to address the issue of participation in the life of the school through changes in management, whether these be decentralization, establishment of adequate organizational structures, information systems, training of managers, etc. School-based management may produce greater quality and efficiency in education but for such an approach to work effectively, it needs to be designed bearing in mind the specific conditions of the societies in which it is to be applied.

Moving towards a hybrid administrative system

The school-based management approach has, however, to be reconciled with the need to operate the national education system coherently. Focussing on improving the school as an organization does not mean mandating central policies and programmes that try to put pressure on or intimidate schools to improve. Nor does it mean eliminating all rules and regulations, leaving schools adrift in a sea of autonomy.

The challenge is to find a balance between these two extremes, to carefully delineate and distribute authority and responsibility throughout the system, maximizing the use of human and financial resources at each level with the ultimate goal of improving student achievement.

In a recently published book, I have argued for the need to move towards a hybrid system of administration and management with a clearly defined division of labour between the various levels.

I have suggested that the responsibilities of the ministries and local education authorities be more clearly defined. The definition of educational objectives addressing policy issues, establishing norms and standards of quality, and regulating the overall education system could be entrusted to this central administration. At the local level or school level, actual implementation and management activities should be entrusted to the actors involved (users and consumers of education, and in particular the headmasters and the teachers). The intermediate level would be responsible for support and backstopping activities, communication channels, feedback and staffing.

Having already discussed the conditions for adopting a school-based management approach, allow me to comment on the central and intermediate levels.

At the central-level, the functions of setting educational policies, regulations and quality control, as well as the provision of financial resources, require special organizational structures, and, in many cases, radical reforms of existing cumbersome administrative machineries, a clear definition of tasks, adequate staffing policies including training, appropriate information systems for monitoring policies and proper evaluation of achievements. Urgent attention should be given to investment in these priority areas.

At the intermediate level, perhaps the most important challenge before us is to reconcile the dual responsibility of the organizational structure which is both administrative and professional. While intermediate structures tend to be predominantly staffed with ex-teachers, i.e. professionals, they also tend to devote more energy to administrative support. Proper incentives should be designed so as to encourage staff at the intermediate level to discharge their professional responsibilities efficiently. At the same time, another challenge is to transform the intermediate level into becoming, from the administrative and professional point of view, a two-way communication channel between the centres and the schools and which has to be both top-down and bottom-up. Without the latter, neither the centre nor the schools can manage effectively.

Finally, responsibility at the intermediate level has to be proactive in the sense that it should resist the traditional tendency to behave as a one-way passive transmission channel from the centre to the schools.

This again will require a clear definition of tasks, adequate staffing including training, reliable information systems which are relevant at the intermediate level and different reward structures. Priority should be given to these areas of concern.

It is interesting to note that both centralized systems, such as the French, and decentralized systems, such as the British, have tried during recent years to move towards what might be called hybrid administrative systems. For example, France adopted a law on decentralization about a decade ago and school-based management experiments called *projets scolaires* were started in the 1980s. For the time being, it seems that both systems are facing severe problems and difficulties. The prerequisites for an adequate balance between centralization, decentralization and localization have not yet been completely met, neither in France nor in the United Kingdom, and it is certainly too early to judge these experiments. In fact, the results and the applicability of similar experiments in other countries will depend on how well they are adapted to those countries.

What they do suggest however is that regulations must be clearly laid down, known and understood by all the actors involved. The government and the schools must be familiar with and understand the allocation formula. There must be unambiguous demarcation as to which activities shall be under the responsibility of the school, which shall remain with the central level and which will have to be entrusted to the intermediate level of administration. The priorities set by the government must be known to all, and the initiatives and freedom of action of principals in the management of their schools must be plainly defined.

Some developing countries have tried to go beyond the rhetoric of participatory planning and administration and have experimented with specific new rules and regulations in areas such as building and nutrition, splitting responsibility among the central administration, the intermediate authorities and the schools, communities and parents' associations. Partially implemented hybrid administration has been particularly effective in some cases.

Although it is too early to judge and make a definitive statement, we would suggest that, all things considered, hybrid systems which gradually reallocate responsibilities among the central systems, the local administrations and the users appear the most attractive on grounds of both cost and efficiency, if they:

- establish diversified information systems adapted to the needs of all actors;
- clearly specify and diffuse the rules and regulations and the criteria for incentives;
- develop administrative and managerial capacities through recruitment and training;
- redirect resources which are adequate to finance the above.

Most developing countries start out with a fairly centralized administration and movement towards hybridization will be slow and difficult. No planner is eager to incur the displacements or to enter into the long negotiations which are necessary to adapt regulations and to redefine duties, ranks and power bases. Where elementary and secondary teachers' unions exist, these are forces to be considered and the support and enthusiasm of these essential elements in the business of education must be enlisted if the sector is to run well.

At the tertiary level, there have always been institutions which enjoy wide and solid autonomy and they have experienced very little interference in their routine management. Today, however, many of them also suffer more or less serious problems of inefficiency. New sensitivity to economic cycles has made them particularly vulnerable. Uncontrolled expansion in fat years is followed by drastic adjustment in facilities, staff and management of student flows in lean years. Thus some kind of hybridization introduced gradually is seen as a valid possibility at all levels of the sector.

Concluding remarks: a prologue

In the preceding paragraphs, I have amply suggested that there is no simple answer to the question of improving school management. If the system of centralized structures has failed to serve the evolving needs of expanding education systems, they did help in the early days of quantitative educational expansion and they are still essential in determining policies, reducing disparities and in quality control. If decentralized structures are attractive, especially when decentralization leads to devolution of authority to schools, the experiences of school-based management suggest: (i) the need for human resource development; (ii) accepting co-ordination mechanisms at the central level; and (iii) tensions and conflicts which cannot be addressed independently of the social conditions of the countries concerned and without reference to the central and intermediate administrative levels. There is therefore no quick solution, no simple formula suitable for all countries. Each society has to design its own proper mix to make things work. The challenge for policy-makers is to strive, in a pragmatic way (trial and error), towards the establishment of such a mix. In doing so, they should not overlook the final aim of such a change. It is the improvement of quality and equity in education.

In this regard, we should remind ourselves that there is a profound difference in production culture between the manufacturing industries and the services; this stems from the simple fact that the former handles inanimate raw materials and the latter human beings. In most services, the outcome is strongly dependent upon the active participation of the client in the service process, whether the client is a pupil, a patient, a passenger, or a customer. The client's experience of the quality of the processes in which he or she is involved may be as important as the final product and also strongly influences the final product. This means that economic theories and concepts of productivity and efficiency as developed in relation to manufacturing industry have little relevance and may be quite misleading in service sectors. Moreover, unlike manufacturing industries, services, including education, often function at their best when the processes are open-ended and involve all actors. This means that when searching for the proper mix, in 'dosing the hybrid structure', the share of partnership and participation should keep its significance in all sectors. ■

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The role of the state in education*

Juan Carlos Tedesco

It is already becoming commonplace to speak about a crisis in the paradigms we use in our attempts to understand social reality. Dissatisfaction with the usual modes of thinking triggers a variety of reactions. In some cases, fortunately few in number, the crisis prompts people to defend the old all-inclusive models, accentuating their dogmatic character still further. More frequently, it fosters preoccupation with particular and immediate concerns, as pride of place is given to a so-called pragmatism that is—in appearance only—unconnected with trends and models of wider application. The following analysis is an attempt to bridge the gap between aspirations towards all-inclusive models—now outdated owing to the remarkable diversity of present-day society—and pragmatic immediatism, which does not allow people to understand the logic behind social actions and, consequently, also precludes participation in related decision-making.

Reflections on the state are a good example of this theoretical debate. On the one hand, the 'worldwide standardization' of the modern state model characteristic of the countries of Western Europe gives encouragement to blueprints of a universal character. On the other hand, this trend contrasts with the enormous socio-cultural and political diversity occurring in Third World countries (Kazancigil, 1985). This is not the place for a detailed analysis of the theoretical and practical problems arising from the expansion of the modern state. However, it should be borne in mind that the expansion of that

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[*] This article is taken from a paper presented at the workshop entitled 'Towards Strategic Planning for Education' organized by the International Institute for Educational Planning (28 November to 2 December 1988) to mark its twenty-fifth anniversary.

model, in the form to be found in societies where it evolved endogenously, provides a yardstick (with the promotion of development and modernization theories as its most outstanding features) against which peripheral societies measure themselves and, at the same time, as a Procrustean bed imposing structural conditions which distort and limit the development of the model.

I therefore consider it important to include two caveats in this introduction. The first, obvious but none the less necessary, is the need to avoid the risks of extrapolating from certain problems, analytical categories and solution-oriented strategies which apply to certain well-defined contexts. The second and more specific caveat is that the following analysis should be placed in the context of the specific situation of one region in the Third World (Latin America) which has been strongly affected by the expansion of the modern state model.

The article is divided into three sections. The first attempts to sum up the main thinking on the state in dependent countries put forward by some theorists in sociology and modern political science. It aims to place the analysis of the state's role in education within the overall framework of the state and its relations with civil society and with social agents in general. The second section aims specifically at describing the state attitude to education over the past few years, in the light of the impact of the economic and social crisis in Latin American countries. The third section attempts to present some views on future relations linking the state with education and society in the context of a development process that seeks to reach targets of growth and equity. In that connection, some thoughts on future prospects for educational planning are also expressed.

The state and society

During the last few years, criticism of the state, in both neo-liberal quarters and on the left, has become widespread. This criticism predominated in theoretical and political discussions from the point when the modern state in its contemporary version (i.e. the Keynesian state, the welfare state or whatever the name given to the form taken by the post-war capitalist-democratic states), began to show symptoms of crisis which some people considered to be structural faults.

From the administrative point of view, these criticisms have emphasized aspects such as inefficiency, the high cost of centralized bureaucratic machinery, curbs on innovation and the relative failure to meet the objectives of equalizing benefits, among others.

From the political point of view, it is pointed out that it is becoming difficult to maintain links between political representation through the political parties and corporate representation of organized interests, especially because of the growing predominance of the latter in decision-making.

Lastly, from the economic point of view, the chances of solving employment problems in a situation where it is increasingly difficult to maintain high growth rates are small. The basic contract between the different social sectors, based on abundant resources and high growth rates, is growing increasingly weaker, and this is encouraging a tendency to focus on specific cases and to fragment negotiations at a local or regional level (Schmitter, 1986).

However, these criticisms (and this crisis) have come along after a long period during which there was a high level of consistency and legitimacy as regards the promises made and the results delivered in the democratic-capitalist state of the developed countries. As may be seen from indicators of public and social expenditure as a percentage of gross domestic product (GDP) for European countries, the credibility and consistency of the capitalist democracy formula in the post-war years were based on the fact that it was quite possible for the state to satisfy the demands of the different social sectors. Available data indicate that, in spite of the economic crisis in the 1970s, expenditure on social welfare services in these countries continued to rise to percentages ranging from 20 to 30 per cent of GDP (Borón, 1986; Rassekh and Vaidenau, 1987).

Likewise, it may also be argued that this state model worked successfully because the different social echelons formed a close-knit fabric: social agents maintained contacts with political forces and were involved in different forms of state participation.

In any case, the crisis of the welfare state is a home-grown product of developed capitalist democracies and comes at a time when a solution has already been found to a large range of problems such as:

The social integration of the entire population or, in other words, the formation of a body of citizens as a universal category.

The upholding of a lawful institutional system, whose decisions are accepted.

The existence of an efficient administrative structure under the responsibility of the state (French model) or composed of professional civil servants (Anglo-Saxon model) (Badie and Birnbaum, 1982).

Smooth co-ordination and consensus do not preclude conflicts. But the existing level of legitimacy is high enough to absorb them and keep society on the rails.

The problem of the state in dependent societies and, in particular, in Latin America, has been a recurrent theme of political science and sociology. It would be difficult to summarize all the available data here, but it would be no exaggeration to say that a state-of-the-art study on this subject would show that, in fact, uncertainty and bewilderment predominate over substantiated assertions.

In a recent analysis, Touraine (1987) proposes an interesting set of hypotheses that may serve as a point of departure for relocating the problem at a level more conducive to the analysis of some significant phenomena in the education sector.

To begin with, Touraine points out that the most important characteristic of social development in dependent countries is the lack of co-ordination linking social agents, political forces and the state. The situation of dependence means that economic power is largely out of the nation's control and prevents consolidation of the sovereign state or the cohesion of social agents. As Touraine (1987, p. 25) claims:

> One feature common to dependent and colonized societies is the lack of co-ordination or partial disjunction of modernization, social struggles and the role of the state or, in more analytical terms, of economic systems in the case of social struggles, political systems in the case of modernization, i.e. social and national integration, and ideological systems organized to defend national or territorial identity against foreign domination.

This disjunction is reflected in the fact that persons acting in the political and cultural spheres are overly independent of those in the social sphere (defined by their position in the economic process), and accounts for what Tokman (1985) terms the 'weakness of the human factor' which expresses itself, for example, in a belief in industrialization without an industrial bourgeoisie, revolutionary ideology in the absence of revolutionary movements and, in general, a strong capacity for expression together with a pronounced inability to produce results.

Such detachment and excessive autonomy does not imply the existence of clear and precise distinctions between social agents, representative political forces and the state. On the contrary, the low level of development and the lack of connections between agents leads to a certain lack of differentiation and to the non-existence of purely social agents. To quote Touraine (1987, p. 13):

> The European democracies were strong in so far as they represented organized social forces and classes, and, more specifically, a working class organized into unions and a capitalist class organized into financial groups and business associations. In Latin America, on the other hand, it is easier for a social group to gain entry into the machinery of state than to form a representative party.

Instead of a sovereign national state resulting from a political system representative of the country's social forces, there is either a repressive system that prevents the formation of a system of political representation or a wide-open political market that is not dominated by a hegemonic central body. In such a context, the alternatives are either corporatism within the state itself or subordination of social agents to political doctrines. The relative lack of hegemony that this situation reveals accounts for the constant changes and the ease—at a purely political or ideological level—with which it is possible to switch from one line of argument to another, and from one social theory to another. One of the most visible characteristics of the political scene in Latin America is therefore the yawning gap between words and reality, between rule and practice, between the possibility of taking a decision and ability to put it into effect.

The prevalence of neo-liberal postulates during the past decade and the economic crisis associated with high foreign debt have sharpened some of the features mentioned in the foregoing paragraph and triggered new phenomena. The state in dependent countries is known to be constantly governed by the twofold logic of external and internal relations. In the case of Latin America, the introduction of neo-liberal policies during the decade 1970–80 was, in some cases, associated with highly authoritarian internal political practices. This association led to a weakening of the nation-state and a strengthening of the state as repressive machinery, which accentuated its lack of legitimacy even more. The subsequent use in 'state management' of the debt and the consequences of adjustment policies (cuts in social expenditure, recession, rising unemployment, etc.) also contributed to provoking this phenomenon, which, in the final analysis, is based on the state's substantial loss of autonomy in formulating and implementing economic and social policies (ECLAC, 1985; Graciarena, 1984).

The loss of autonomy with regard to external factors went hand in hand with a complex internal process whereby, in most cases, democratic liberal patterns were established (or re-established). The weakness of these patterns and the difficulties encountered in consolidating them are evident. All indicators confirm, to a greater or lesser extent, the rise in social inequality and the inability of the state to meet social demands. Societies are becoming more difficult to govern, and this state of affairs takes on features that vary from one country to another, ranging from open urban or rural guerrilla warfare and wildcat strikes to systematic protest actions organized through trade unions or other mass organizations.

From our particular standpoint, the rise in inequality seems to be associated with an equally significant rise in 'state corporatism'.

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The crisis has heightened political fragmentation and underscored the role of the representation of vested interests over and above representation by political parties, itself weak and disjointed. Ultimately, social inequality also expresses itself in differing capacities to organize and claim rights.

The obvious danger in this process is that the state may increase inequality through the over-representation of organized minorities and, in so doing, relinquish its role in counterbalancing and co-ordinating collective interests (Loaeza, 1988).

There are very wide differences between state 'corporatization' in developed capitalist countries and in dependent countries, for while in the former the underlying social situation is one of relative homogeneity, in which all sectors are integrated under conditions that enable them to play to the full their roles as creators of demand and consumers, in dependent countries a large sector of the population is not integrated, fewer resources are available and there is a narrow margin of legitimacy and consensus within which political action is possible.

The disarticulation characteristic of the development process in dependent countries partly explains the low level of efficiency that typifies state management in those societies. But within that general context, some particular aspects which have had a notable effect on forms of state management must be pointed out.

Some authors have developed the theory of 'disorderly expansion' (see Martins, 1984) of the state, which is said to be responsible for the lack of a 'state system' and for the co-existence instead of a host of patterns that vary according to the sector of state machinery under scrutiny (the economy, the legal system, education, etc.) or according to geographical situations or position in the hierarchy of bureaucracy. There is no comparable lack of system in the Anglo-Saxon model of state organization, in which power is highly decentralized and ordinary citizens are substantially involved in decision-making. On the contrary, the different spheres of power are fragmented and segmented, and, owing to the nullification of decisions by the general failure to put them into practice and other similar phenomena, this causes much administrative paralysis, anachronism, rigidity, and finally, inefficiency.

The economic crisis and recent policies have given rise to phenomena that may be exacerbating those general features still further. In the first place, it is highly probable that as a result of falling salaries and the incentives offered by the state itself to reduce employment in the public sector, the most highly qualified human resources are leaving the civil service. In addition, equipment, facilities and all those aspects on which the state's management capacity and the quality of public service rest are also deteriorating. One point to be taken into account is that qualitative changes occur when such cutbacks are maintained over long periods of time. It is one thing to impose low salary levels on the public sector for one year but quite another to do so over a long period of time. Similarly, there is a difference between reducing spending on equipment, maintenance of buildings, etc., over a short period and over a long period. The effects are not only greater but in some cases irreversible (Lagos, 1987).

Secondly, mention should also be made of the attempts at state reform that have begun in several countries. These projects generally form part of decentralization policies aimed at greater efficiency, procedural relevance and participation in decision-making. The particular case of education will be considered later; at this point we shall only refer to the small number of evaluations of the impact of those reforms, which cover a variety of situations. In some cases, decentralization policy is implemented under authoritarian political systems in which it is consequently associated with the possibility of reinforcing regional differences and increasing social and political control. In other cases, decentralization involves the transfer of power and resources to local bodies under the heading of political democratization and broader grass-roots participation. Finally, there are cases where decentralization is motivated by economic and budgetary considerations, for which the problems and responsibility for solving them may be transferred but not the resources. In any event, these reforms started recently and in a context of great economic penury. This context may seriously affect the success of the reforms, owing both to the weakness of compensatory mechanisms for transferring resources from richer to poorer areas and to the weakness of central government in carrying out the new tasks incumbent on it in a decentralized system.

The state, education and the economic crisis

In view of the subjects raised so far, the link between the state and education in dependent societies and its prospects for the future may be analysed against the wider background of the state and society.

From the general theoretical point of view, and despite the diversity of national situations, it may be said that the development of education in Latin America has had closer links with the political and ideological system than with the system of production. As acknowledged in various research papers, education has expanded more than other social services, and the people's educational aspirations also exceed both their individual means and the system's ability to satisfy them. The educational generation gap that occurred in most Latin American countries between 1950 and the present, for example, is very significant. Even today, in a country like Argentina, where education expanded early and widely, one-third of the students entering university come from homes where the parents did not complete basic education. Different types of political and cultural factors are associated with this phenomenon (Rama, 1984), but in any event the state played an active role in meeting educational demands. That role is freely acknowledged to have been greatest in the general provision of basic education. However, the incorporation into the education system of social sectors traditionally excluded from it was accompanied by two important phenomena: the persistence of high exclusion rates owing to high failure rates in the early grades (in other words, failure in learning basic cultural codes) and the growing internal tendency for education to separate into channels that varied considerably in quality, a tendency closely linked with the distinction between state and private schooling. The features and extent of this differentiation differ from one country to another, but there is evidence that even in countries where there is a strong tradition of high-quality state education, internal differentiation and segmentation have increased considerably in recent years (Braslavsky, 1985).

In the context of the present economic crisis, this traditional situation has undergone some important changes. I shall attempt to describe them under four headings: scope of the education system, quality of education, resource allocation, and management capacity (Tedesco, 1987).

SCOPE OF THE EDUCATION SYSTEM

With regard to the scope of the education system, there are three salient phenomena: (a) the growth of pre-school education in which the state participates considerably; (b) the rise in academic failure rates at the level of basic education; and (c) a variety of situations regarding enrolment at secondary and higher educational levels, with a trend towards the state playing a greater role in making provision for those levels.

These phenomena may be interpreted, succinctly, as follows.

As far as low-income groups are concerned, the crisis has halted the process of transition to secondary and higher education levels and worsened their chances of gaining access to basic education. With regard to middle-income groups, the situation is less clear-cut.

Generally speaking, there has been an increase in demands made on the state, which has responded favourably. Pre-school secondary and higher educational levels primarily benefit the middle and upper social strata. An increase in state responsibilities at these levels would be designed to meet the requirements of middle-income groups who cannot, or can no longer, afford to pay for private education. Unfortunately, the information available does not permit in-depth analysis of these problems. However, as a working hypothesis, it may be assumed that the increase in state responsibility for educational services for the middle classes is connected with an increase in internal differentiation: the education provided by the state is acquiring more and more characteristics of mass education, while private education becomes increasingly élitist.

QUALITY OF EDUCATION

With regard to quality, growing internal differentiation raises serious doubts about the state's ability to guarantee a minimum of qualitative homogeneity implicit in the idea of national and cultural unity and identity. Analysing this problem is an extremely complex task, both by its nature and because of the lack of relevant information. However, there are two aspects that I wish to highlight: failure in terms of academic performance, and the problem of cultural homogeneity in a context of ever more rapid scientific and technological change.

The available figures clearly show that the level of efficiency of education systems is low, and that over the past few years, in some regions like Latin America, the situation has worsened (Unesco, 1987). Academic failure, as everyone knows, occurs primarily during the early grades of basic education and is therefore specifically associated with the learning of basic cultural codes. The relative inability of the state to guarantee this minimum educational attainment is due to many cultural, political, economic and educational factors (Tedesco, 1983). But seen from our perspective, failure seems obviously connected with the state's denial of a significant component of the national culture.

Analyses on this subject have shown time and again that the education system holds up the habits of the urban middle and upper classes as the 'universal' cultural standard. This is obvious in the language, values and guiding principles of socialization and, basically, the cognitive skills that are a prerequisite for academic success within the system. Failure to perform on the part of pupils from working-class backgrounds would therefore appear to be not a failure to learn universal skills, but a failure to learn skills foreign to their culture of origin.

This problem is most manifest in the case of indigenous population groups: here the teacher-pupil relationship is distorted, since teacher and pupils use different linguistic codes.

However, now that major changes are occurring in the production of knowledge, it is also necessary to examine the issue of quality from the point of view of that which is not yet covered by the curriculum, but which is none the less an increasingly important aspect of contemporary culture. In other words, we should analyse the degree and extent to which obsolescent curricula are used in education systems. The increasingly rapid renewal of scientific and technological knowledge is concomitant with the growth of respect for the cultural identity of peoples, which helps to accentuate traditional levels of curricular obsolescence. The economic crisis adds two new factors to this situation: on the one hand, it widens the gap between the pressing need for a qualitative overhaul of school teaching methods and the resources available for achieving it, and, on the other, it makes obsolescence more widespread by affecting segments of the education system that in the past had traditionally offered a relatively acceptable quality of education.

There is a need for in-depth studies on these points, but on the strength of available data we may put forward the hypothesis that the gap between academic and 'social' culture is widening. In other words, the cultural content of the education system (particularly that provided by public establishments catering for lower-income groups) tends neither to reflect nor to reproduce any socially significant cultural habits: that is, neither popular culture nor modern scientific and technological culture.

RESOURCE ALLOCATION

As regards resource allocation, recent studies have revealed the magnitude of the impact of the crisis generally, and its consequences on education policies in particular (Lewin, 1987). In addition to the overall decline in spending on education, stress should also be laid on two aspects of significance in this analysis. First is the increase in the percentage of the educational budget earmarked for salaries, which makes it difficult or impossible to improve the quality of education, as no investments are made in materials, new technologies, maintenance of buildings, equipment, etc. Second is the trend towards allocation of resources by level, which favours secondary and higher education to the detriment of basic education and adult education.

Both phenomena show that the criteria used for resource allocation do not reflect the objectives of economic streamlining or social equity, but the ability of the different social sectors to express their demands. Teachers' unions and students at the secondary and higher levels are social agents who are very good at organizing themselves and influencing decision-makers in the area of resource allocation.

MANAGEMENT CAPACITY

A general reference was made earlier to the management capacity of the state. On the basis of the available data, it is not possible to determine whether or not the decline in management capacity in the specific field of education is steeper than in the other areas of public administration and, in particular, in the remaining government departments responsible for the social sectors. However, two salient facts seem to indicate that this is the case. First, the education sector has lost influence in relation to the remainder of the state machinery, especially bodies that take decisions concerning resource allocation (Garcia, 1987). In that regard it has been argued that education is no longer an attractive field for public investment, either because of its low efficiency, or the 'surplus' of education as expressed in high professional unemployment figures, or the low impact of educational development on social democratization, etc.

It is doubtful whether these arguments are valid. However, the decline in the sector's management capacity causes a vicious circle, for with lower funds and a weak administrative structure, internal problems will increase and thus further reduce the chances of redressing the situation.

Secondly, it must be borne in mind that teachers constitute one of the majority groups in the public sector. The decline in teachers' pay has caused widespread protests which have brought educational activities to a standstill for long periods. The most serious cases have been in Argentina, Bolivia, Peru and Venezuela. The fact is that in recent years educational activity has taken place in an atmosphere of staff demoralization, active resistance, absenteeism, etc., which has prevented not only the introduction of innovations but also the normal performance of regular duties.

Although the private sector was also affected to some extent, the public sector was obviously harder hit, thereby compounding the difference in quality between the two.

Outlook for the future

Some aspects of the debate on the outlook for education and the role of the state may be regarded as relatively outdated. First of all, it is recognized that the basic problem is not one of determining whether the state should be more or less active. On the contrary, the problem is how to ensure that the objectives of democratization and maintaining high standards in education are effectively attained. It is only with these objectives in mind that it is meaningful to compare the role of the state with that of the private sector, the role of central government with that of local authorities, and so on. Similarly, it is also unanimously agreed that the central planning/free market alternatives are neither contradictory nor mutually exclusive mechanisms. The net result of this period of criticism of the state has, without any doubt, been a clearer appreciation of all the problems of inefficiency, clientelism, bureaucratization, etc., in public-service structures. However, application of the neo-classical paradigm has also led to disappointment and scepticism because of its undemocratic effects and, in a few cases, because of its negligible impact on efficiency and quality. It therefore seems obvious that the debate today hinges on strategies for coping with the challenge of reconciling efficiency and equity, traditionally viewed as quite separate objectives which, consequently, cancel each other out. Just as it can no longer be claimed that the state is always inefficient and that only market mechanisms guarantee optimum results, it cannot be maintained that homogeneous public policies are alone capable of ensuring a fair distribution of goods and services.

Secondly, reference must be made to the problem of internal differentiation within the state apparatus itself, in view of the growing importance of local and regional bodies on the one hand and certain sectors of activity on the other. This differentiation makes it possible, at certain points, to arrive at partial agreements concerning specific problem areas or regions even when no agreement can be reached at national level or in general.

Thirdly, it must be borne in mind that the debate on the role of the state in Third World countries is taking place in a context with two outstanding characteristics: on the one hand, their capacity for action is being weakened not only as a result of social demands for greater participation and democratization of organizational structures, but also because of the economic and financial crisis which is fundamentally affecting state action in the social sphere. In that regard the transfer of responsibilities from the state to the community is not, in some cases, an initiative that will improve the quality and efficiency of the service or give users greater control over its characteristics, but simply a transfer of financial responsibility.

On the other hand, it must not be forgotten that the considerations governing the actions of the state in Third World countries are twofold: internal and external. These twin considerations lead to situations that are difficult to reconcile. The weakening of the nation-state (in terms of sovereignty, decision-making autonomy, etc.), made worse by the stringent conditions imposed by adjustment policies for dealing with debt payment, may generate internal conditions that strengthen the machinery of authoritarian political control.

The difficulties faced by democracies in Latin America, in trying to reconcile existing internal participative practices with a strong external negotiating capacity, attest to the complexity and fragility of these situations.

Analysis of the state's role in the light of the two-pronged challenge of achieving both equity and efficiency reveals a series of problems which, though intimately interlinked, should be considered separately so that they are easier to understand.

In terms of policies to achieve equity, reference will be made to problems of resource allocation and the quality of education. With regard to policies aimed at efficiency, we shall consider the problem of how to achieve a broader spread of responsibility for results.

RESOURCE ALLOCATION

In analysing the state's role in resource allocation, it should be borne in mind that scarcity will be the keynote of the future. The economic crisis afflicting the Third World is not the transient result of circumstances, and although it may be somewhat eased by favourable negotiations on debt repayment, restrictions will continue in the short and the medium term.

In situations of scarcity, competition for available resources becomes keener. The struggle to acquire scarce resources becomes fiercer among both social groups and sectors of activity. With regard to education, it has been claimed that the problem will be one of competition with two other powerful agents: 'the military (and militarist circles) and those who wish to cut back resources in the public sector in order to boost economic growth' (Carnoy, 1986). Furthermore, competition also comes to the fore within the education sector among those who claim that priority should be given to the lower rungs of the system (basic education, literacy, adult education) and those who stress that priority should go to higher education and scientific and technological research.

In discussions on whether or not to invest in education, some authors have put forward the hypothesis that the education sector should take the initiative again by demonstrating the value of education in the processes of growth and development. The impact of criticism on human capital theories and some prominent social phenomena (unemployment of educated people, little change in the distribution of income despite educational expansion, etc.) have weakened the negotiating position of those in charge of the education sector as far as other decisions on resource allocation are concerned. In developed countries, on the other hand, this phenomenon is fading and there is a growing conviction that in the future, possession of knowledge and information, and the ability to produce them (intelligence), will play a decisive role. The future of the education system is a key concern in all developed countries (Lesourne, 1988), and this concern seems to be closely associated with the need to maintain high levels of competition for markets.

In the developed countries, there is noticeable awareness of the priority that shall be given to training, in both private and state sectors. Firms invest heavily in training, research and development and these investments are said to be the cause of the growing privatization of the production and distribution of knowledge. As knowledge is regarded as valuable capital, the characteristics of its production and distribution are becoming increasingly similar to those that define the production and distribution of all goods. More and more difficulties are therefore emerging, a case in point being use by the public of certain private products that are knowledge-intensive (software). In these contexts, demands are being made on the education system to provide sound basic training that will prepare people for work later on in the production and consumption of goods and services. Demands are also being made for greater flexibility in allowing transfers from one form of education to another, the decentralization of responsibility for the implementation of curricula together with an increase in the capacity for evaluation and for alignment with national priorities, etc.

In Third World countries, on the other hand, the requisite consensus on the priority to be given to education does not yet exist. The need to maintain educational growth and guarantee the right to education for all is acknowledged, but these aims are not translated into public policy. The weakness of the private sector prevents it from offering an alternative to the state. In many instances, the private sector strives to obtain larger public grants in order to finance levels and establishments attended by social groups in relatively higher income brackets. In others, however, although substantial percentages of national resources are set aside for education, the problem is that the total amount of resources available has fallen significantly, because of external debt repayments, or because of the economic recession or for both of these reasons.

It is therefore relevant, in the case of Third World countries, to support the need for new initiatives in enhancing the role of education in development and growth, and this clearly cannot be done on the same terms as in the past.

A very serious dilemma facing those countries is to determine whether priority in resource allocation should be given to the bottom or the top of the system. The logic of social demand favours allocation to the top, since the middle and upper classes are in a better position to state their demands and, besides, their educational credentials have become devalued, with the result that more years of study are needed in order to stay in the running for posts at the top of the market. The spurious growth of post-secondary levels of the education system associated with the political and social consequences of excluding large population groups from education serves to justify calls for the state to shift the emphasis to the bottom of the system in its decisions concerning resource allocations.

However, we should not make generalizations or wholly underestimate the importance—from the point of view of national interests and the process of endogenous development—of public spending on strengthening scientific and technological potential in Third World countries. The economic crisis has aggravated still further the traditional weakness of scientific activity in dependent countries. But at the same time their capacity for consuming imported technology has also declined, and growth will be possible only if their endogenous technological potential increases significantly.

Third World countries undoubtedly have to tackle these problems from very different starting points. Generally speaking, however, it would seem that no one contests the need to ensure universal access to basic education; with regard to the top of the system, on the other hand, it is claimed that there is a need to limit and select according to specific criteria (the labour market's absorption capacity, individual merit, the system's ability to cater for candidates offering guarantees of quality, or a combination of all these criteria).

The challenge of dealing simultaneously with problems at the bottom and top of the system therefore makes it necessary to define criteria for both at the same time. In other words, the validity of a specific policy for one part of the system may be judged by its effects on the system in its entirety. Hence it may be said that the validity of selective policies on access to the top of the system depends on the existence of systematic and efficient policies for expansion at the bottom.

Thus the aim is not to choose either alternative to the exclusion of the other. It is vital to solve problems at the bottom of the system in order to ensure that social development is democratic in character. Strengthening scientific capacity, by promoting the training of highly qualified resources and the production of knowledge in order to solve social and productive problems, is vital to ensure growth and the availability of resources. This implies acknowledging that whereas the criterion for evaluating policies aimed at the bottom of the system is their impact on access and general provision of education (elimination of academic failure, dropping out, etc.), a criterion for evaluating policies concerned with the top of the system is the excellence of their output (whether knowledge or human resources).

In this approach, we must consider the role of each of the social agents and that of the state. If decisions concerning resource allocation continue to be governed by each social sector's ability to exert pressure, it is obvious that inequalities will be perpetuated and strengthened. The alternative, in order to break out of this 'market-oriented' line of reasoning, lies in consultation and co-ordination machinery that enables the state to play an effective compensatory role by transferring the resources to the neediest sectors. The future of principles of equity in the development of poor countries will henceforward be to a large extent determined by the creation of such machinery and by its efficiency in producing results.

QUALITY OF EDUCATION, SOCIAL EQUITY AND THE ROLE OF THE STATE

The question of equity in education is a matter not merely of the number of years spent studying but of the socially significant character of the knowledge that pupils gain while at school. Equity is therefore defined by the possibility of ensuring that the entire population has access to a homogeneous core of knowledge, values, skills, etc., which constitute both the cultural expression of national unity and the medium through which active participation and social awareness is possible.

The state has traditionally borne responsibility for providing this central core of education for the entire population. This expectation has been given as a reason for administrative and organizational patterns based on the centralization of authority, little community participation and curricular uniformity. The implications for school administration will be discussed below. We shall now analyse the problem of curricular uniformity as a strategy for ensuring equality of opportunity. Two different phenomena have been reported as evidence of a crisis in this traditional approach. First, the process of quantitative expansion recorded in recent decades has gone hand in hand with growing internal differentiation from a qualitative point of view. The existence of different 'brands' of schooling has been noted in various countries, and in many cases the differences depend on whether the establishments are state-run or private. Second, cultural homogenization has been challenged from two different angles: (a) the cultural identity of peoples and cultural diversity are now claimed to be factors that enrich, not weaken, national unity; (b) the burgeoning output of scientific and technological knowledge and the increasingly pervasive influence of science on modern culture are rendering obsolete curricular content and the values that schools normally instil.

These two phenomena are distinctive features of the cultural heterogeneity characteristic of many Third World countries which, in the case of Latin America, is manifest in what some authors have called the 'low normative integration' of society (Germani, 1985) or 'societies in which there is no basic consensus' (Brunner, 1986).

In contexts such as these, the cultural level defined as basic is the specific nucleus of one sector of society, and, for that reason, its extension to the rest of society is predominantly authoritarian. This is most noticeable in societies where there is strong ethnic differentiation (Amadio, 1988). In such cases, however, group demands are made, not for separate treatment, but for a broader and more balanced distribution of the benefits of development through a culturally pluralist state.

From this point of view, the problem of educational standards is, in very general and abstract terms, part of a twofold challenge: on the one hand, the need to capitalize on cultural relevance through diversification at the start of the learning process and, on the other, the need to draw on the capacity for innovation and change characteristic of contemporary scientific and technological culture. These two aspects are not contradictory. Cultural relevance in a situation providing no access to science may lead to isolation, which will compound backwardness and dependence. The incorporation of science and technology in the absence of a strong endogenous nucleus will lead to a mere cultural enclave or, on a large scale, would be an undertaking doomed to failure.

The problem is not exclusively one of teaching; the role of the school is, however, a very important and specific one and may be summed up in the question of how to end the school's cultural isolation by ensuring that there are effective links between the curriculum and local culture, on the one hand, and between the curriculum and the world of work, on the other. This two-pronged approach obviously implies that there is a risk of fragmentation and a weakening of national unity. In that connection, but from the cultural angle, there re-emerges the subject of the consultation machinery which, if the aim of imposing a single homogeneous model is abandoned, would make it possible to reach basic agreements on the rules of conduct, co-existence and mutual respect. The role of the state would be defined less by the imposition of a given cultural pattern or model than by encouragement of values and forms of organization that reflect such a basic agreement. Certain values are frequently mentioned because they are closely associated with endogeneous development strategies, and the education system would have a significant role to play in disseminating them through the socialization of schooling: these are solidarity, creativity, participation and efficiency.

THE STATE AND RESPONSIBILITY FOR EDUCATIONAL PROGRAMMES

Closely connected with the foregoing point, but viewed now from the angle of educational administration, is the problem of responsibility for the management of educational services. We shall address two problems in particular: (a) the role of the state and of the private sector; and (b) the role of central government and of local authorities (provincial, municipal, district, etc.).

In recent years there has been a groundswell of opinion in favour of privatization, on the one hand, and decentralization of state administration, on the other. The arguments given for supporting these alternatives differ from one author and experiment to another, and the only conclusion that may possibly be drawn is that these issues cannot be analysed in general terms.

The importance of the social, political, economic and cultural context for each alternative is crucial in determining its value and the form that it takes. Educational administration, for example, may be decentralized within the framework of democratic and participative political processes, and likewise under systems that are authoritarian, socially hierarchical and exclusive (Pescador and Torres, 1985; PIIE, 1984).

Organizational models of educational management are not ends in themselves, but instruments that facilitate or impede the attainment of specific objectives. From this point of view, the key problem facing education systems in Third World countries is the low level of responsibility for results to be found in the styles of administrative management in vogue, particularly in the state sector.

The shrugging off of responsibility for results that characterizes the working of education systems is usually blamed on administrative centralization and curricular uniformity. Similarly, there is widespread agreement that strategies for achieving institutional autonomy, decentralization and community participation in school administration can generate greater dynamism, relevance and responsibility in dealing with specific social demands. In practice, at least in Latin American countries, these features have been the privilege of the private educational sector only and have therefore been associated with educational services catering for the middle and upper classes. The theory that the state's educational function—which is to guarantee national unity and equality of opportunity—should be independent of group pressure associated with the concept of providing services to satisfy the client, has in fact led, in most cases, to a differentiated structure in which the possibility of participating and demanding a particular quality of service is determined by the ability to pay. The public service is beyond the community's social control and thus suffers from low innovative capacity and a lack of responsibility for results.

The key question is therefore how to run educational administration on lines that guarantee equity and efficiency, democracy and innovation. The results of decentralization experiments begun in recent years are little known and far from conclusive. There is, however, a hard core of questions concerning antidemocratic trends in decentralization, associated with the weakening of the role of the state, when decentralization is put into effect without any compensatory arrangements to prevent the already existing inequality between regions and social sectors from becoming more acute.

There is a case for saying that strong central administration is needed if decentralization is to achieve its objectives of democracy and reinvigoration. The strengthening of central administration should clearly not follow the traditional pattern. It will be required to deal more with two main areas: evaluation of results and compensation for differences.

In a decentralized system in which component institutions enjoy a high level of decision-making autonomy, conditions at the outset may be as differentiated as need be. The methods and resources used to achieve the objectives may also be highly diversified. However, the role of the state should be essentially that of attaining a certain degree of homogeneity at the end of the process and, with that aim in view, it should have a strong capacity for evaluating the results of activities carried out by local bodies and, on a par with that evaluation, an equally strong compensatory capacity for backing up local units that do not have their own resources with which to attain the objectives

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defined as national goals. These activities (evaluating results and compensating for differences) presuppose the existence at the administrative level of both an efficient quality control structure and a compensatory fund making it possible for decisions to be taken on the basis of the evaluation of results. (It should be made clear that such an evaluation should not be confined to measuring learning achievements but should include all the variables that account for such achievements and should, in turn, constitute the basis for decision-making.) Exactly what such machinery will be like will depend on particular national characteristics; the point that must be stressed here is the need for these functions to be established as the priority task of central educational administrations. If the state is to perform these functions efficiently, it must have a basic component—a capacity to inform. Only if it has a strong capacity to produce suitable information can decisions be duly adopted relating to the identification of problems, the definition of priority policies, management control, resource allocation, etc. The value of information is not, however, confined to these functions within the state machinery. Information is also a basic component of any policy to strengthen citizens' participation in making and in monitoring the implementation of educational decisions.

EDUCATIONAL PLANNING

To conclude, we should also look at the implications of this analysis for educational planning. The subject is a very broad one and much attention is currently being paid to it. An exhaustive study of the future prospects of educational planning is, of course, outside the scope of this article. I shall merely make two main comments summarizing the most significant implications of the foregoing analysis.

First, it would seem possible to predict a strengthening of state machinery, especially in countries with a high foreign debt. Several authors (Lagos, 1988; Gurrieri, 1987) have outlined the main factors that necessitate such strengthening. From the economic standpoint, they have mentioned the role of the state in: (a) negotiating the foreign debt; (b) obtaining international funding; (c) raising the rate of investment; and (d) formulating a strategy for industrial transformation. From the political point of view, the strengthening of the state seems to be bound up with its role of providing the machinery for consultation among the different social sectors. In that regard, it is interesting to call to mind Crozier's (1987) view that the greater the number and freedom of agents to express their interests and demands, the greater the need for organization and management.

Although responsibility for that organization does not necessarily fall to the state, it would seem that only the state is capable of bringing all parties together to manage common problems. This statement by Crozier, which applies to developed capitalist countries, must be expanded in the case of Third World countries to include the state's role in raising the level of participation of sectors hitherto excluded.

Strengthening state machinery obviously does not imply raising its levels of intervention or increasing its size. Mention has already been made, at least with regard to Latin America, of the paradox of the existence of large but weak states. Strengthening the state means providing it with an adequate planning capability (Gurrieri, 1987) so that it can deal with problems arising, *inter alia*, from the following factors: (a) shortage of resources; (b) growing complexity in decision-making processes and the need to co-ordinate different levels and sectors; and (c) reconciling short-term demands (emergencies) with medium- and long-term requirements.

Secondly, it must be pointed out that there is an urgent need to revise planning models. From the socio-political standpoint of this article, it would seem that the new approaches in educational planning should take at least three considerations into account:

Better acquisition with and provision for the various social agents, in terms of the membership of their groups, their general propensities for action, their negotiation capacity, abilities and scope, etc.

The need to confine planning to what can actually be planned, by limiting the state's action to those aspects which serve a priority purpose (setting priorities, evaluating results, off-setting differences, developing public information systems).

Special consideration for strengthening management capacity to ensure that syllabuses and curricula are not reduced to mere empty formulae.

Finally, educational planning in the future will have to face the challenge of defining its own identity and role between the growing complexity of both the political decision-making process and the requirements of an efficient administration based on the co-existence of a wide range of alternatives. ■

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SECTION II

The Practice of Educational Planning in Different Regions

Educational planning, administration and management in Africa

Vinayagum Chinapah

The contemporary socio-economic situation in Africa is one of general pessimism interspersed by flickers of optimism. Perhaps what is really needed is pessimism of the intellect, which implies recognition of past errors of economic, political and social nature as well as scepticism about perfection of remedial and developmental measures suggested from outside the African sub-region. The continent also requires an optimism of the will, to keep on trying. Court and Kinyanjui (1988) argue that Africa is a continent characterized by tumult and change over the past twenty-five years, but it has one fascinating constant which is the persistent and seemingly insatiable public demand for formal education.

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The political, social and economic situation in Africa

Never before has the African continent witnessed such a popular commitment to programmes of action for economic recovery and development, structural adjustments and human-resource development. However, this commitment is far from being a general consensus among these countries to adopt 'packages' proposed by others. These packages need to be modified according to the political, social and economic conditions of each country.

THE POLITICAL BACKGROUND

There have been increasingly concerted efforts in the 1980s among African leaders to tackle their countries' social, and economic situation. At all international summits and conferences, the rallying cry for aggressive development strategies is heard. In the field of education, these summits and conferences have laid the foundation for new educational strategies in the region (Lagos Plan of Action, 1980, the Harare Conference of Ministers of Education and those responsible for Economic Planning in African Member States, (MINEDAF) V, 1982, the Organization of African Unity (OAU) Heads of State Conference on Priority Programme for Africa's Recovery, 1985, the Khartoum Declaration, 1988, etc). We should also mention the commitment of the international community, including bilateral and multilateral agencies such as the Swedish International Development Authority (SIDA), UNESCO, UNDP, the World Bank, etc., towards programmes of economic recovery, human resources development planning, and indigenous development in the region. In the face of seemingly intractable problems for socio-economic development, the people of Africa become emboldened to question the legitimacy of some of the socio-political systems that rule them. In many places, for example in Algeria, Nigeria, Zambia and Ghana, to name but a few, there is extensive debate with regard to genuine and popular participation in government through well-defined channels.

SOCIO-ECONOMIC CONTEXTS

Socio-economic and structural imbalances in African development are often approached in a polarized manner. There are those who view the current situation as an outcome of the international crisis with worldwide inflation, unfavourable terms of trade, etc., while others see the crisis to be internal, namely in the nature of state policies, internal class structure or political instability (UNESCO, 1987, p. 36). However, the current threat of economic stagnation or decline would hit the already underprivileged or marginal groups in African societies the hardest.

The social situation in the mid-1980s has deteriorated in many ways and has been marked by crisis in most areas of human development – health, nutrition, housing, education and employment. By 1987/88, poverty had become widespread in both the urban and rural areas of the region affecting between 50 and 75 per cent of the population. In 1987, around 4 million Africans were identified as refugees and as many as 10 million displaced persons. Many households are living under the minimal level of basic human needs.

Furthermore, an explosive deterioration of the quality of education marked by increasing problems of educational wastage (drop-outs, repeaters and failures) is noticed in such a situation. By 1984 as many as 40 per cent of the school-age population had no exposure of any kind to formal or non-formal education (ECA, 1989).

Other socio-economic indicators for countries in the region show marked variations. The annual population growth-rate between 1975 and 1983 was below 2 per cent for some countries (Cap Verde, Gabon, Mauritius and Seychelles, all of them with a population of not more than 1 million in 1984), while it was above 4 per cent for countries such as Botswana, Cote d'Ivoire, Kenya and the Libyan Arab Jamahariya. Furthermore, in some countries the percentage of rural population was as high as 80 per cent or more (fourteen countries), and as low as 50 per cent or less (three countries). A similar trend was observed in terms of life expectancy, as high as 60 years and above for eight countries and as low as 50 years and below for twenty-two countries. Marked differences between countries in the region are recorded also in terms of low GNP. In 1985, there were seven countries in the region with per capita GNP above $1,000 while as many as nineteen countries had GNP per capita below $300. Real GNP growth-rate per capita during the period 1965–85 ranged from a minus in thirteen countries to a plus of more than 3 per cent in nine countries. This evidence of socio-economic variations between countries in the region confirms to a certain degree the danger of applying cook-book prescriptions of structural adjustment to programmes suggested outside national contexts.

The difficult economic situation has in the recent past been exacerbated by renewed drought, floods, civil wars and regional conflicts in countries like Ethiopia, Sudan, Mozambique and Angola. These problems have created precarious food situations, disrupted transport routes, uprooted communities and produced millions of refugees, affecting both economic and political conditions.

Serious economic dissatisfaction originates from rapid inflation, distribution and structural imbalances, wage-policy problems, harsh staple food-price adjustments and marked reduction in people's living standards. The above socio-economic problems are further aggravated by terrible housing conditions of low-income earners, poor nutrition, low resistance to disease, the looming menace of AIDS and serious drug-abuse problems. Important gains made in the education sector in the 1960s and 1970s have been reversed, and employment as well as employment services have deteriorated both in terms of quality and quantity. Brain-drain and the exodus of labour are on the increase in the region.

The overall economic picture, however, remains gloomy, and the human costs of most structural adjustment programmes are extremely high and give much cause for concern both internally and externally. According to the recent economic report from Africa (ECA, 1989, p. 6) the number of countries experiencing negative or below 3 per cent growth-rate have, in fact, increased from twenty-nine in 1987 to thirty-one in 1988. Botswana and Mauritius have recorded exceptionally high growth results for specific reasons: Botswana because of its booming diamond industry and Mauritius because of its rapid industrialization.

The gloomy economic situation of Africa over the past years has also led to a worsened external debt position, which in 1988 stood at $230,000 million. The volume of debt rose by $10,000 million in 1988 alone. New loans (leading to actual new debt) is only increasing marginally. The burdensome increases essentially reflect effects associated with the fluctuating value of the US dollar, the accumulation of arrears, and the capitalization of interest rates.

Coming back to the field on education, Wright (1989, pp. 80–90) provided an extensive analysis of the World Bank Policy Study in sub-Saharan Africa (1988) starting with the argument that the study has several shortcomings in terms of: (a) controversial interpretation of available data; (b) a hint of idealism and naivety in some suggestions and recommendations; (c) an unwarranted fudging of issues related to the wider implications and implementation strategies of some policy suggestions; (d) a rather restrictive policy framework imbued with pessimistic caution; and (e) insensitivity to the crisis-induced potential for initiative and creativity which always lurks within situations of socio-economic decline. He further warns against the cost-strategies and cost-measures proposed in the structural adjustment programmes in education which he considers to be purely dictated by monetarist economic theories.

The views expressed above are pertinent to existing planning, administrative or managerial strategies and to those designed for educational development in the region in the 1990s and beyond.

An overview of education in Africa

Around the time that most countries in Africa, especially sub-Saharan Africa, gained independence from colonial rule, the region lagged far behind the rest of the world on nearly every indicator of Western-style educational development. Since the early 1960s, however, the nations of Africa have invested heavily in education at all levels. There has been a firm belief that without education, development could not occur. It has also been generally conceived that only an educated population could command the skills necessary for sustainable economic growth and a better quality of life (see the Harare Declaration). A recent report (UNESCO, 1987) provides a comprehensive overview on the past and present achievements as well as shortcomings of educational development in Africa. Some of the major points are examined here.

African achievements in the education sector have been impressive, both in absolute terms and in relation to other sectors or to other countries, in the period between 1960 and 1980. That is a tribute to all involved: African parents and leaders, missionaries, United Nations agencies and external donors. In the period after 1980, however, it has been increasingly difficult to mobilize resources for education, and a somewhat decreasing proportion of GNP has been allocated to education since 1980. When viewed from an international perspective, the proportion of GNP destined for education in the region is rather low, especially when applied to the young population. Statistics reveal that educational expenditure per pupil represents hardly a quarter of the world average. The economic and financial constraints since the early 1980s have had increasingly adverse effects on quantitative as well as qualitative aspects of education and training in the region. At the same time, poor capacity for educational planning, administration and management is manifested in most countries, which are regarded as the *sine qua non* of successful implementation of educational reforms, changes and innovations.

THE PRESENT SITUATION

Although it is almost impossible to take stock of the achievements and shortcomings of educational development and to propose future educational actions for such a heterogeneous, varied and complex environment as Africa, an attempt is made here to look ahead from a synoptic educational view.

School enrolments have stagnated since 1980, and in some cases fallen below the levels reached in the 1970s, in almost all the basic educational institutions of the region. This reflects the present economic situation in Africa. For example, children, especially girls, are kept away from school because they are needed to contribute to the family income, not the least because of the recent droughts, which have forced many families to migrate. This poverty has also caused malnutrition and poor health, which in itself reduces the number of educable children, and accounts for part of the lack of success at school. Furthermore, in many countries the fall in total family income has coincided with higher fees for schooling and related activities, which have been introduced because of the scarce resources available for the sector. Although basic education remains a requirement for at least reasonably successful participation in the labour market, the demand for schooling is expected to remain at a lower level than prior to 1980, as the immediate private gain by basic education is limited. This is due both to the recent economic stagnation and the increasing number of graduates, which have prompted a rise in demands for educational qualifications on the labour market.

The quality of education has declined at all levels. Among the explanations given for this are the low expenditure per student and the ineffective allocation of existing resources. The expenditure per student is especially low at the primary level, which is particularly disturbing because of its importance as a foundation for other levels of education and because of its close link to adult literacy. In addition, there is evidence to show that over the years, little progress has been made in improving teaching/learning conditions, that is, unavailability or shortage of textbooks, lack of curriculum relevance, and poor supervision and management.

School failure – that is, early and later drop-outs, frequent grade repeating, and poor academic standards – is a problem that has been noted at all levels of schooling, particularly at the primary level. This phenomenon deserves special attention in relation to its vast implications for the cost of education, which are also reverberated at subsequent stages of education. In terms of quantitative research the problem is quite well documented, and the statistical reports of the problem give cause for much concern. As to a qualitative analysis of the causes, the area remains insufficiently investigated (Chinapah, 1990*b*). The 1982 Harare Conference pointed out social and economic factors, and the perceived scant relevance of education, as plausible determinants of the problem (UNESCO, 1987, p. 25). On the other hand, in Zimbabwe a gross primary enrolment ratio, over 100 per cent is reported. With a low rate of repetition, Zimbabwe seems to have achieved the goal of universal primary education.

A low level of cognitive achievement has furthermore been recorded, though there are exceptions to this in some of the well-established secondary schools of the region, where achievements are quite high. However, some caution is necessary in allowing the level of cognitive achievement, as evidenced by test scores, to be the only basis for drawing conclusions about the quality of education. Although the level of cognitive achievement is certainly an essential indicator of the pupils' future productivity – as it reflects one of the most important goals of education – yet, quality is a multi-faceted measurement. Quality, therefore, will also have to encompass such factors as the extent to which education manages to accommodate modern market-oriented skills with existing traditional needs and values.

The problem of maintaining the standard of existing resources, for example, maintaining an adequately trained and motivated supply of teachers and restoring dilapidated premises and facilities, may at least, in part, be due to a preference for emphasizing development as defined by new projects, rather than maintenance of existing facilities. Poor teaching materials are yet another problem that needs immediate attention.

SOME ALTERNATIVE SOLUTIONS

The question of a better performance of African education systems, involves consideration of both quantitative and qualitative dimensions. Problems need to be seen in their proper cultural context and approached in a multi-disciplinary way with an eye on revitalization, selective expansion, diversification and decentralization. Serious rethinking would call for the following:

Matters concerning healthy and educable pupils, qualified and contented teachers, suitable textbooks, relevant teaching materials, and appropriate instructional language policies need to be addressed.

Better educational administration, planning and implementation imply clearer formulation and articulation of objectives and involvement of relevant groups at all levels.

The intensification and rationalization of school and out-of-school literacy teaching, with an emphasis on the complimentarity of adult literacy teaching and primary education has to be considered. An enhanced use of the existing non-formal education pattern has an essential contribution to make with respect to rationalization of literacy teaching.

Curriculum restructuring is needed to include realistic basic environmental care in schools and the consideration of choice of language for instruction as well as for the maintenance of indigenous languages.

The stepping up of relevant educational research and educational evaluation as well as a systematic use of scientific, cultural and technological research must be pursued in order to identify, define and master some of the problems of the continent.

Educational planning

The institutionalization of educational planning in Africa is a rather recent phenomenon. In most African countries, educational planning was institutionalized in the 1960s and 1970s. In Africa, as in various other parts of the world, educational planning was greatly influenced by the general policies of planned social, cultural and economic change replacing the traditional piecemeal and *laissez-faire* approaches. Educational planning became an important component of national development planning. At the time of independence and immediately afterwards, African countries found it imperative to have a prospective rather than a retrospective outlook when planning their education systems to meet the needs of nation building. Élitist and restrictive access and provision to educational services were in general replaced by a populist system of education.

Planning education for the young Africans of tomorrow became a challenge to people from all walks of life. At an earlier phase, the social-

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demand approach to educational planning became predominant. There was a massive expansion of educational facilities and services in order to compensate for the limited educational access which prevailed during the colonial period. Later, educational investments were examined from the standpoint of meeting a particular country's manpower needs and requirements. This was then followed by a greater emphasis upon cost-benefit analysis of such investments in terms of priorities attached to different levels and types of education. It is important to note that all three approaches to educational planning (social-demand, manpower-planning and cost-benefit) were used simultaneously at various points in time. One would not be surprised to find that they are still in vogue today in most circles of policy-making, planning and implementation in these countries.

ORGANIZATION AND MAJOR FUNCTIONS

In recent years, the notion of educational planning and its relevance to the present political, socio-cultural and economic contexts of African countries were strongly debated at both national and international levels. New directions for educational development and educational planning in Africa were presented at various summits and conferences. The current challenges to educational planning should be understood in the light of the recommendations from these summits and conferences as well as in view of the recent analytical documents dealing with this particular topic in Africa.

An attempt is made here to select some of the major trends in the practice of educational planning in Africa. It should be noted however, that it is impossible to do justice to particular changes taking place in this field within each of the African countries. Very often it is the case that these national changes are not properly documented, disseminated or accounted for.

African countries do not claim to have an endogenous system of educational planning. In fact, the development of educational planning in Africa was greatly inspired by the achievements and progress made in other parts of the world, mainly with regard to its organizational structures, functions, techniques and innovations. For example, many of the current issues and problems of educational planning as addressed at the international seminar organized by the International Institute for Educational Planning (IIEP) in 1983 are constantly reported in national and sub-national seminars and workshops on educational planning in the African countries. Three fundamental questions arose from the IIEP seminar: Should educational planning still draw its inspiration from past experience? Should it open up the horizons of its thinking as regards the necessary and sufficient types of information? If so, upon what criteria should this information be identified, gathered, classified and disseminated? (IIEP, 1984, p. 10).

The UNESCO Regional Office for Education in Africa (BREDA) has since its inception been instrumental in the process of institutionalizing educational planning in Africa with the assistance of national, bilateral, regional and international agencies and institutions. In recent years, the major activities of BREDA in this field have concentrated on the Regional Technical Project for Training and Research in Educational Planning and Administration, having as its acronym COFORPA. The COFORPA project is open to all Member States of UNESCO in sub-Saharan Africa. By 1988, thirty-four of the forty-four Member States in the region participated in its various activities.

Organizational and functional activities in the field of educational planning have, over the years, expanded tremendously in most African countries in response to the rapid quantitative and qualitative developments of their education systems which for decades were blocked by the colonial authorities. Starting with a small unit, bureau or department located at the Ministry of Education, educational planning was given a too pretentious and ambitious task. It resulted in the current situation in many of these countries, that is, the need to compartmentalize educational planning units, bureaux or directorates into divisions, departments or sections specializing in various aspects of educational planning at the central level. Likewise, many conventional macro-level educational planning strategies gave way to more micro-oriented ones, as evidenced through the importance attached to school mapping and micro-planning, decentralization or planning by programmes and projects. An equally important emphasis is given to the qualitative aspects of educational planning mainly in relation to problems of educational wastage (drop-outs, failures and grade-repeating), educational inequalities between regions and between different socio-economic and cultural groups, gender disparities; unemployment and job-creation; youth and adult illiteracy, and cost-recovery strategies in educational financing.

An important function of educational planning units or their equivalents has been to co-ordinate and communicate with other ministries and with corresponding units at regional and subregional levels. Here it is often difficult to separate the planning functions from those of administration and management. At present, very little is done to ascertain the practice of centralization and/or decentralization of educational planning in Africa. Through the compartmentalization of educational planning in most African countries, the number of divisions, sections, or departments fulfilling various educational planning functions has increased. They are grouped here into four major categories to illustrate their different functions:

Statistics, information and documentation: responsible for collecting, processing, analysing and disseminating educational statistics involving diagnosis and projection.

School mapping, construction and equipment: responsible for the updating of the school atlas and maps; selection of sites and plans for school buildings and construction, updating specifications for all educational supplies; carrying out studies and surveys on equipment and maintenance requirements. Often these activities involve micro-planning at institutional levels.

Preparation, implementation, evaluation and monitoring of educational plans, programmes and projects: responsible for surveys of national needs and priorities for short-term and long-term educational plans and for externally funded programmes and projects; identification and allocation of human, financial, material and organizational resources; evaluation, and monitoring of programme and project implementation.

Evaluation studies and research: responsible for diagnosis, evaluation, and forecasting of needs for various levels and types of education; surveys on curriculum, examination, educational finance, educational disparities; studies on school administration and management.

Evidence from twenty-one countries showed that these four categories occupy the major share of educational planning functions in Africa (Table 1). In addition to these four main categories, there are special units dealing solely with externally financed programmes and projects like the external relations service in Ethiopia and the Central African Republic, the project implementation unit in Kenya or the project planning, monitoring and evaluation unit in Sierra Leone. In some cases, there are country-specific units, for instance, programming and control in Benin, pedagogy in Cap Verde, computers in Gabon, or school facilities section in the Gambia.

TABLE 1. Entries from twenty-one African countries on major functions of educational planning

Function	Number	
Collection, processing, analysis and dissemination of statistics	14	67
Elaboration and evaluation of plans	13	62
School mapping	12	57
Different studies	11	53
Preparation and execution of investment programmes	6	27
Training	5	24
Formulation and evaluation of educational policy objectives	5	24
Formulation and follow-up of agreements and contracts	3	14
School, university and professional orientation	2	9
Educational projection	2	9

Source: COEDRPS, Document 86/4, p. 3, Dakar, BREDA, 1986.

An ever-increasing amount of co-ordination has evolved in the process of planning education in Africa as seems also to be the case elsewhere. It is often argued that educational planning which encompasses a vast and complex area of social, cultural, political and economic interventions with a focus on the entire education sector should be seen through the eyes of different groups of actors, agents, and beneficiaries situated both upstream and downstream of the planning and administrative systems (IIEP, 1984, p. 131). Co-ordination, information, and communication linkages are often the prime determinants of successful planning and implementation.

PROGRESS AND CHALLENGES

In most African countries, educational planning units, or their equivalents, function more as co-ordinating bodies establishing liaisons at both the horizontal and vertical levels of educational decision-making and implementation, as has been observed above. Paradoxically, many of the drawbacks of current educational planning practices are related to poor co-ordination, information and communication linkages evidenced through a number of country reports (Chinapah, 1990*a*). However, it is important to note that, generally, there is no corresponding improvement in resources (personnel, financial or material) to meet the expanding functions and activities of educational planning at both central and sub-national levels. Many of the future challenges of educational planning will need to focus on some of the largely unattended problems of the past as well as to those that have recently emerged.

Among the many challenges in educational planning in Africa, those associated with (a) organizational and structural issues; (b) personnel development; and (c) quality of the information-base for planning, deserve particular attention.

Organizational and structural issues

Instead of centralization or over-centralization a greater emphasis should be places on regional planning, school mapping and micro-planning. These are necessary changes which will contribute to developments in the area of: (a) establishing or strengthening the linkages between policy-making and actual implementation of educational plans, programmes and projects, which in turn may result in better and more realistic planning and programming; (b) increasing the flow of information and ensuring a greater participation between different agents, actors and beneficiaries directly or indirectly involved in the processes and outcomes of educational planning at central, regional, and subregional levels; (c) reducing problems of educational inequalities and wastage and enhancing the relevance of education; (d) improving planning, administration, management functions at the subnational levels; (e) providing better opportunities for evaluation, monitoring, and follow-up of educational policies, plans, programmes and projects; and (f) facilitating the rationalization and utilization of available resources for education and educationally related-services.

Personnel development

The rapidly changing and expanding systems of educational planning and administration in Africa have not been accompanied by a corresponding increase and improvement in personnel serving these systems. Besides high problems of attrition and mobility among the planning personnel, many systems have suffered from a lack of a proper structure, for ensuring on a permanent basis, pre-service and in-service training of educational planners. Likewise, very little has been done to improve the initial skills and competences needed to adjust to the demands and challenges of educational planning in response to the fast-changing environments of these countries. In the present context, educational planning needs to be associated with a new and more holistic approach to human resource development planning which in turns places new demands on the skills and understanding of educational planners (Chinapah et al, 1989, p. 29).

Information base for planning

The performance of educational planning depends largely on the nature, coverage, quality and relevance of the information base. In the majority of African countries, there is a lack of accurate and complete data for a systematic and comprehensive analysis of the present education system for making projections and scenarios for the future. Similarly, there is a lack of information pertaining to personnel and financial management (staff recruitment and turnover, salary patterns and promotion principles, resource allocations and re-allocations procedures and practices, co-ordination of funds from public and private sources, and cost-recovery strategies). Emphasis on crude and quantitative data often limits the possibilities of examining the qualitative aspects of educational planning. Data are limited for analyses of the causes of educational wastage and poor academic achievement among schools and students in many of these countries. Altogether, an improvement in the information-base for education can only be encouraged through frequent and more effective evaluation, monitoring and research works.

Administration

Much of what has been observed in the previous section bears a direct relevance to educational administration in Africa. Educational administration and educational planning overlap each other in the fulfilment of their functions, which, to a large extent, are of a complementary nature. It is therefore difficult, if not impossible, to draw the boundary between the two. Instead, the relationship between planning and administration may be better conceived as a continuum rather than a dichotomy (IIEP, 1987, p. 36).

While educational planning has often been given a role of its own, educational administration has, on the other hand, been closely associated with the general system of public administration from organizational, functional and operational standpoints. For instance, in many African countries decentralization of educational administration *per se* cannot be separated from overall policies and practices of decentralization (Chinapah and Miron, 1990).

Before dealing with the organizational features and major functions of educational administration in the region, an attempt is made here to summarize the major bottlenecks in its practice as reported in some of the country studies (see Table 2). The results clearly indicate a poor capacity for educational administration in terms of skills and competences. As a whole, it is possible to conclude that successful educational administration depends more on the quality of the administrative personnel and to a lesser extent on financial and material resources.

TABLE 2. Entries from sixteen countries in Africa on major bottlenecks for educational administration

Major bottlenecks	Number	%
Lack of qualified personnel	16	100.0
Personnel turnover and mobility	7	43.8
Lack of resources (financial and material)	7	43.8
Poor infrastructure (logistics, transportation, etc.)	8	50.0
Lack of training facilities	12	75.0
Co-ordination, participation and communication barriers	10	62.5
Lack of rewards and incentives	8	50.0

Source: UNESCO, 1990s World Survey of Educational Planning for the International World Congress, Mexico City, 1990. Author's own analysis of the returns from sixteen African countries.

ORGANIZATION AND MAJOR FUNCTIONS

Educational administration as any type of administration can be approached from three inter-related perspectives: organizational/structural, functional and operational. Generally, educational administration can be defined as an organizational structure consisting of a hierarchy of systems and subsystems at national and subnational levels with different interrelated functions delegated and made operational through the interactions of an ensemble of different actors and agents, serving educational development purposes of a nation. This definition does not vary much across countries, but in practice the nature, scope and coverage of educational administration are very much determined by the political and socio-economic structures of a country.

In the 1960s, most African nations were heavily involved in setting up appropriate educational administrative structures to cope with the massive expansion of their educational and educationally related developmental needs. For some years, concerted efforts were made to strengthen these structures in terms of trained and qualified personnel, financial and material resources and facilities, and general infrastructures. Today in these countries, the maintenance of existing structures, their adjustment and improvement in order to satisfy the prerequisites for educational reforms, changes and innovations are the major preoccupations of educational administration.

From the information available on some of the countries in the region, the following general trends can be observed. First, educational administration is often pursued in joint collaboration with other ministries, directly involved with certain types of education, for example, ministries of social welfare, youth and sports, health, employment, and the like. Second, in some countries, educational administration is organized along more than one ministry and by levels or types of education. Third, it is rather common in many countries that some aspects of educational administration have remained centralized (educational financing, personnel management, curriculum planning and development, legal affairs, research and policy-making, fellowships and awards), while others such as inspection and supervision, examination, production, distribution and maintenance of equipment and facilities are delegated to regional and subregional levels. Fourth, in some countries, regional and to a lesser extent, district administrative offices are mandated to administer primary or basic education as well as non-formal and literacy programmes. As a whole, it can be said that in the region increasing efforts are being made to decentralize educational administration while emphasizing greater participation in educational management from head teachers and school principals, school committees and parent-teacher associations.

DECENTRALIZATION AND PARTICIPATION

A down-to-earth approach to educational development in Africa has been a long-standing requirement. However, this can only be achieved with an appropriate structure permitting effective educational administration to take place. This requires not only enough resources but also a strong commitment by all partners to decentralized educational policy-making and educational implementation.

Decentralization and greater participation in educational administration can contribute to more democratic decision-making processes. Better opportunities for the underprivileged and marginal groups to voice their educational needs, priorities and expectations can be provided, which in turn can contribute to a reduction of educational inequalities. In a situation of economic austerity – which the majority of African countries are at present exposed to – decentralization and participation can address one of the prevalent limitations by creating opportunities to identify and mobilize local resources. Similarly, education can be made more relevant and more efficient through better contacts with local needs, expectations, and realities. In this context, the achievements made in Ethiopia through an appropriate system of administration and management to ensure smooth planning and implementation of educational reforms, in Zambia through the self-help action plan for education (SHAPE) and multigrade schools, and in Botswana and Zimbabwe through the works of the Brigades, are cases in point. These benefits are often ascertained by donor agencies themselves. In a recent World Bank Policy Study (1988, p. 82), it is argued that greater decentralization corresponds to the characteristics of African countries, namely the long distances between individual schools and the centre, great ethnic and linguistic diversity; and relatively poor systems of communications. Evidence from some comparative studies on decentralization and participation in educational planning and administration confirms these findings (Coombs and Ahmed, 1974; McGinn and Schiefelbein, 1980; Chinapah, 1989).

The success of decentralization and participation in education depends on the extent to which the decision-making processes are adapted to them, that is, involvement of implementation agents of education programmes and projects in these processes. Simply transferring existing organizational administrative structures together with their conventional practices, norms and values to local levels will not work. An improvement in the administrative and managerial competencies at regional and subregional levels is equally important.

Effective decentralization and participation in education in Africa calls for well-defined roles, functions and boundaries of various units and divisions at various levels of educational planning and administration as well as an effective mechanism for the flow of information downstream and upstream as well as horizontally. Such a mechanism can spare time, resources and personnel from the central units and divisions to strengthen their roles and functions in policy formulation and analysis, quality control and dissemination.

Management

The principal agents of educational reform and change in a country are those mandated to implement them, while at the decentralized levels these agents often function as actors and potential beneficiaries. However, seldom, their concerns, needs and interests are sub-jects of scrutiny or critical appreciation. They are very often left out of the discussion of educational policy-making and administration. These agents being the front-line implementors at the different levels of educational institutions (schools, colleges, educational centres and universities) play a decisive role in the actual realization of educational policies, programmes and projects that are administered either in a centralized or decentralized manner. The educational management capacities of most education systems in Africa need to be strengthened. In the World Bank Policy Study (1988, p. 89) two areas of top priorities were mentioned: (a) the improvement of programmes for selecting, training, and supervising school headteachers and principals, combined with greater institutional autonomy, and (b) the development and implementation of achievement testing systems that provide feedback on institutional performance to individual schools, their supervisors and the communities they serve.

Educational management in African countries suffers a great deal from a scarcity of qualified and motivated personnel due to inadequate training facilities and insufficient reward structure of incentives. A centre–periphery pattern persists in the availability of resources. The best educated and most committed educational managers are often encouraged to leave local-level administration in order to serve in central-level administration through promotion practices. There is evidence from countries in the region (e.g. Botswana, Ethiopia, Senegal, Zambia and Zimbabwe) that disparities in skills and competence are reinforced by socio-economic, cultural, and gender differences between the personnel serving at the central level and those serving at subnational and local levels.

Returns to efforts and investments in educational management are many. In the present situation of economic austerity in Africa, we cannot overlook these returns. Educational managers are among the most appropriate agents to ensure implementation of any cost-recovery strategies in education, that is, strategies designed for optimal use of existing as well as untapped resources. They are equally the drive behind quality improvement in education which demands appropriate leadership style, entrepreneurship and commitment.

Most African educational-management systems are challenged by pressures from educational reforms and changes initiated at the central level of decision-making or by current innovations or experimentations which they are not prepared to easily accommodate. The World Bank Policy Study (1988, p. 81) indicates that the new challenges do not reflect a problem of appropriate policy but rather poor management capacities mirrored by: (a) low investment in this area; (b) fragmentation of efforts by governments and donor agencies that inhibits sustained institutional development; (c) multiple and sometimes conflicting donor policies and procedures, which often consume a disproportionate share of management time and attention; and (d) difficulties in adapting modern forms of organization to the values and patterns of allegiance characteristics of many African cultures.

Training in educational planning, administration and management

The linkage between educational policy-making and educational implementation depends very much upon a country's national capacities in educational planning, administration and management. This aspect was emphasized more and more in the 1980s through successive international, regional, subregional and national conferences, seminars, and workshops in Africa. Planning, administering and managing continuously changing and expanding systems of formal and non-formal education in Africa require not only a sufficient amount of human resources at national and sub-national levels of planning and administration, but also different categories of personnel possessing relevant skills and competences to meet the quantitative and qualitative educational challenges.

Unfortunately, most countries in the region do not possess an adequate stock of human resources to serve their expanding systems of educational planning and administration, and also have not yet created a permanent structure to develop their national capacities for relevant pre- and in-service training in the field of educational planning, administration and management. In the absence of such a permanent structure, it is hardly possible to pursue integrated training policies, linking initial training with in-service training and/or 'common core' training programmes for the several categories of education personnel. The lack of competent educational planners, administrators and managers has often been the major reason behind the mismanagement of the scarce resources available and the poor performance of the education systems in these countries. In many countries, the local-level capacities in educational administration and management were found to be the weakest links in the systems. Likewise, unsuccessful implementation of new educational policies, reforms and innovations were caused by a general resistance to change, from those not properly upgraded to meet the new challenges. In other words, there is still much to be desired in establishing and strengthening the existing national capacities for educational planning and administration in the region.

DEVELOPMENT OF NATIONAL CAPACITIES

In 1980 UNESCO published a directory of governmental bodies and institutions dealing with educational planning and administration around the world. There were thirty-one countries in the region which provided data on their national capacities for training and research in educational planning, administration and management. In that year, only three out of the thirty-one countries had a comprehensive pre- and in-service training programme as well as research incorporating planning, administration and management. However, there were more institutions offering programmes in educational administration than planning or management. There were nearly twice as many institutions offering pre-service as in-service programmes. Based on the data and documents available on the national capacities for training and research in educational planning, administration and management in the countries of the region, Chinapah (1988, p. 13) made the following major observations:

Training and research programmes for educational planning, administration and management are limited in the region and have a fragmented and compartmentalized structure. This does not permit a comprehensive approach to the problems facing the education systems of these countries. As a result, educational planners, administrators and managers have a different perspective on the understanding and treatment of common educational issues and problems.

There are great imbalances in the capacity for pre- and in-service training and continuity between the two programmes is not ensured. As a result, the structural changes and innovations meant to improve existing education systems hardly becomes a sub-ject or a common platform of action for the recipients of both programmes.

Research in educational planning, administration and management tends to follow a route of its own and ends up in the academic (i.e. products from basic research works – dissertations, working papers and articles). As a result, it has practically no effect on the changes and innovations anticipated in education in the region.

The national structures for capacity-building tends to separate training from research. As a result, the complementary functions that are required to ensure that research contributes to policy-making are neither perceived nor promoted. Research persists in being a theoretical and academic pursuit divorced from the practicalities and problematics of day-to-day planning, administration and management.

Strengthening existing institutions or creating new ones will not always succeed in confronting old problems or present needs and challenges of African education systems without a genuine approach to educational planning and administration. Zambia has since 1984 met these challenges through various modalities such as mobile training programmes. This approach should be directed to the needs that can be tackled at national, regional and subregional levels through training trainers and researchers in these fields.

TACKLING THE TRAINING NEEDS OF THE 1980S AND THE NEW CHALLENGES OF THE 1990S

In the 1980s, different modalities were used for the training of educational planners, administrators and managers in the region. These modalities are a mix of international, regional and subregional programmes and activities geared towards the long-term objective of enhancing and strengthening national capacities in educational planning, administration and management in the various countries of the region. At the COFORPA meeting in 1984, it was found that countries in the region would require training of different categories of planning, administrative and managerial personnel in the following areas: (a) high-level technicians, trainers and officials of ministries of education in educational planning and administration; (b) middle-level officials in educational management (inspectors, principals of teacher-training colleges (TTCs), head teachers, etc.); (c) middle-level officials in Educational Planning and trainers in TTCs, directed to statistics, school mapping and micro-planning, school building and project management and monitoring; and (d) financial managers at the institutional level.

Since 1984, most of the efforts of the COFORPA project have been geared to these needs, as well as others identified during the course of implementation, through additional national inventories, regional, national and subregional workshops and consultations. At the 1988 COFORPA Phase II consultation, different modalities and activities were proposed to strengthen the national capacities for educational planning, administration and management in the region. The following needs were identified: (a) 90 trainers in educational planning able to prepare, conduct and evaluate in-service training programmes in educational planning, and especially, in the fields of educational statistics and micro-planning; (b) 180 'national nucleus training' in educational administration able to prepare, conduct and evaluate in-service training programmes in educational administration; and (c)

1,300 'part-time' trainers in educational administration able to assist in the preparation of in-service training programmes in educational administration. In addition, it was decided that methodological guides in educational planning and educational administration should be prepared for each of the three linguistic groups (English-, French- and Portuguese-speaking) together with 'generic' training materials on educational statistics and micro-planning in the case of educational planning as well as national training handbooks and materials.

Collaborative efforts in training and research

UNESCO, through its regional office in Dakar (BREDA) plays the most significant role in establishing, promoting and maintaining regional and subregional co-operation in educational planning, administration and management. Collaborative efforts are heavily dependent upon external funding, for projects like COFORPA, IEPA (Institute of Educational Planning and Administration, University of Cape Coast/Ghana for West Africa) or KESI (Kenya Education Staff Institute). On the whole, structures, if they exist at all, for promoting regional or subregional co-operation in this area (with the exception of those established and maintained through UNESCO) are limited in scope and coverage.

Collaborative efforts at regional and subregional levels in educational planning and administration, besides those from UNESCO-BREDA, are strengthened through the works of the IIEP and through support from several regional bodies and donor agencies (ECA, UNDP, the World Bank, SIDA, OPEC, etc.). Besides training in educational planning and training of trainers in educational administration and management, the COFORPA project has been, and remains, the most effective mechanism for establishing different types of networking activities in the region. The summaries of national experiences in educational planning and administration in COFORPA-Liaison serve as a powerful information base in this field for countries in the region. To encourage information exchange and to update collection, analysis and dissemination of educational statistics, the UNESCO-BREDA office has a computerized data bank (BREDA-STAT) and publishes regional bulletins. Chinapah (1988, pp. 3–5) provided a summary of the major achievements in the region in the light of the collaborative efforts in training, research, development of materials, etc., ensured during the first phase of the COFORPA project (1983–88). These observations served as a feedback for the planning of the second phase of COFORPA, the content of which indicates the challenges in this field for the 1990s.

At the regional level

Co-ordination and execution of the COFORPA project by the Technical Secretariat of UNESCO-BREDA: (a) ensure the participation of Member States of the Region (thirty-four of the forty-four Member States; those not yet participating are Botswana, Cameroon, Equatorial Guinea, Lesotho, Liberia, Madagascar, Mauritius, Nigeria, Uganda, and Somalia); (b) mobilize resources from different funding agencies (UNDP, SIDA, UNESCO, OPEC); (c) establish operational structures for the implementation of the project at subregional and national levels (subregional offices and national co-ordinating bodies); (d) cement the co-ordination for and exchange of the various activities through meetings, workshops and missions; (e) ensure the documentation and dissemination of experiences (COFORPA-Liaison, BREDA-STAT, etc.); (f) implement the programmes at regional, subregional and national levels for training and research in planning, administration and management (research has been the Cinderella of the first phase); (g) provide the necessary consultative services for the smooth running of the project; and (h) monitor the project activities through progress reports and final reports to the Director of the Regional Office and to related funding agencies.

At the subregional level

Co-ordination and execution of the various activities envisaged at the subregional level for the training of trainers, the development of training and teaching materials, and the mobilization of available resource persons in the subregion for such activities: (a) set-up an organizational structure for co-ordinating training programmes in the subregion (Nairobi, Dakar); (b) ensure the participation of Member States in the subregion (nine of twelve English-speaking countries, five out of five for Portuguese-speaking countries, and sixteen out of sixteen French-speaking countries); (c) make optimal use of national capacities for training at subregional, inter-country, and national levels (eight trainers and nine national co-ordinators); (d) develop training and teaching materials for the residential courses with the assistance of expertise from the project team, the technical secretariat of BREDA, and others (consultants) and finalize them in the form of handbooks; (e) ensure the creation of national centres and teams for the co-ordination and execution of national training programmes and the preparation of training and teaching materials or modules; and (f) sub-mit progress reports to the Technical Secretariat at BREDA.

At the national level

Co-ordination and implementation of national training programmes: (a) form national teams for the execution of national training programmes; (b) establish a permanent structure for in-service training of national cadres; (c) ensure optimal participation of national cadres in the programmes; (d) develop teaching and training manuals for such programmes; and (e) sub-mit progress reports to the project co-ordinators at subregional and regional levels.

UNESCO-IIEP programmes in educational planning and administration in Africa are many and should be continued in the 1990s. Increasingly surmounting efforts are needed to fill the gap at the national/central and sub-national levels (regional and district levels). A much greater emphasis should be given to training of planning, administrative and managerial personnel at regional, district and local levels. The problems of overall administration, co-ordination, monitoring and development of educational activities at the sub-national levels within the context of national educational policies should be the general focus for training (IIEP, 1987, pp. 41–3). In more specific terms, the training skills for educational planning and administration and management would have to include:

Knowledge of the socio-economic conditions of the country and of national educational policies, priorities and plans.

Fundamental statistical skills and techniques needed for the collection and analysis of data, the description of local educational provision, the assessment of needs and the making of projections.

Ability to manage and control finances, to prepare estimates and to manage educational facilities and stores.

Skills in planning, managing and executing educational programme and projects as well as skills in personnel management.

Ability to communicate effectively on educational issues, to provide leadership and to promote community involvement in educational undertakings.

Ability to administer public examinations efficiently, with special care for the preservation of security as well as the ability to identify in-service training needs and to organize suitable programmes. ■

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Educational planning and administration in Latin America

From optimism to uncertainty

Fabio M. Bustos

Pioneering work

On the eve of the 500th anniversary of the landing of Christopher Columbus and his navigators in the Western hemisphere, the image presented by Latin America and the Caribbean is one of a subcontinent not yet completed in terms of its institutional structures, irresolute in its approach to basic problems and reflecting an ill-defined cultural and ethnic identity.

In the course of its historical development (conquest and colonization, independence and the republican experience, and more recently urbanization and pseudo-modernization), it has tended to superimpose social structures and values and to accumulate unsolved problems (Latapi, 1990). Historically the subcontinent has had to deal with two contending forces: on the one hand its pre-Columbian roots and on the other the modernizing approaches imposed by outside powers or taken up by dominant national groups or élites.

Among the institutions imported from the West, education is perhaps, one that has played a decisive role, introducing a highly complex element into the social fabric of the region. In quantitative terms and in terms of diversification, this phenomenon has become particularly noticeable over the past four decades, coinciding with the changes in the world situation that occurred in the aftermath of the Second World War.[1] Among the changes affecting educational development in the region, planning can be seen to have been a key factor in the process of supporting and regulating pressure for the expansion and diversification of education. At meetings held as early as the mid-1950s, the education authorities in some countries adopted

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integrated planning as a means of steering educational development, even before economic planning had been accepted and become part of the system of running the region's economic affairs.[2] Latin America's experience in educational planning made quite an important contribution to international education inasmuch as its conceptual and methodological approaches were subsequently extended to other regions of the world through international organizations such as UNESCO.

In educational administration, on the other hand, Latin American experience has been less systematic and more diffuse and its results have been less visible. This is largely due to the sporadic nature of the changes introduced, the overwhelming influence of the traditional State organizational structure, excessive centralism and a narrow 'pedagogic' approach to educational development.

It should be noted that although some common trends and features are discernible in educational planning and administration in Latin America, there are clear differences within individual countries or groups of countries, depending on their historical development, geo-demographic size, socio-cultural and behavioural characteristics and the historical development of their education (Cinterplan, 1988). Bearing these considerations in mind, we may draw certain lessons from the past, identify certain trends and seek to find our bearings and see where the challenges lie in a future marked by uncertainty.

Educational planning in the phase of 'euphoria'

It is beyond dispute that the end of the Second World War altered the geopolitical and economic map of the world and to some extent initiated a new era in world history. The resulting changes had very swift repercussions in Latin America, especially in demographic structures, urbanization processes, the general initiation of a trend towards economic modernization and the unprecedented growth of the state and its institutions. Concurrently with or as a consequence of, these developments, depending on the situation concerned, education recorded an unprecedented quantitative expansion coupled with increasing diversification of its services.

This phenomenon was first observed in the 1950s, gathered strength in the 1960s and much of the 1970s but was showing signs of waning towards the end of that decade. The main thrusts of educational action were the reduction or eradication of adult illiteracy, the expansion or universalization of primary education and the gradual broadening of the coverage of secondary and higher education. Some of the basic strategies adopted were the raising of the level of the state budget for education, massive school-building programmes and equally massive teacher training and recruitment schemes. Programmes designed to change educational content and strategies and the supply and use of teaching materials were also introduced, but on a less systematic basis.

The state played a leading role in this process of expansion and diversification of the educational supply, and planning became a means of regulating or even stimulating this growth. In a sense, planning was, at this stage, the most significant and decisive technical input.

Some of the most striking features of educational planning practices at this point were the more or less universal institutionalization of planning in the Ministries of Education, the degree of importance attached to quantitative methods and instruments, the centralism of planning activity and the employment of 'educational planners' as a new category of technical officer (Bustos, 1990).

Among the approaches that explictly or implicitly guided the planning process, two may be singled out.

First, social demand based on socio-political assumptions (the right of the individual to education as a human right, the social value of education as a means of individual social advancement, the political dimension of education as a vector for the democratization of society, etc.) and on new factors such as population growth, urbanization and the socio-cultural value attached to being 'educated'. This approach predominated in the countries with the highest population growth rates and the lowest coverage ratios.

Second, human resources, that is, the productive economic dimension of the educational process as a supplier of qualified personnel – at different levels and in different branches – in order to meet the needs of the productive apparatus in various sectors and at different levels of employment. Although this approach was adopted in response to the boom in the modern sector of the economy and to the limited relevance of traditional educational processes to the requirements of technical production work, mention should also be made of the influence of international trends resulting from the influx of economists into education and from initiatives in other parts of the world, in particular the OECD's Mediterranean Regional Project (Rogi, 1984).

Other approaches that had some influence (albeit formal and theoretical rather than practical) not so much on policy-making as on the formulation of certain educational projects were based on the theories of human capital and of cost/benefit analysis.

This phase of expansion and credibility in educational planning was based on a number of factors, originating both within and outside the region and Latin American education, such as: (a) the social and political value attributed to education by governments and political forces; (b) the demand for qualified personnel by economies engaged in a process of industrialization; (c) rapid urbanization; (d) international educational trends influencing the region; (e) the key role of outside technical assistance from organizations such as UNESCO and the OAS and later on from international financing banks; and (f) the training and appointment of planning specialists.

This major planning effort had certain constructive results or effects, which may be summarized as follows: (a) a more or less orderly expansion of the supply of educational facilities; (b) the gradual formation of national education systems; (c) reinforcement of the technical capacity of the bodies responsible for running the education system; (d) an increase in state budgets for education and an effort to allocate such funds in relation to established priorities; (e) introduction of certain innovations and changes into the educational process; and (f) recruitment in the field of education of specialists in other disciplines (sociologists, economists, architects, engineers, etc.).

However, certain shortcomings and weaknesses in the region's educational planning effort have, in turn, been frequently noted at conferences and technical meetings and in analytical studies.[1] Some of the most frequently mentioned inadequacies relate to the following aspects:

The virtual predominance of emphasis on quantitative variables and methods to the detriment or total neglect of qualitative factors, reflected in the preferential use of statistical techniques. It is curious to note the parallel and uncoordinated development in the region of two types of planning based on different paradigms: planning of the education system as a whole and planning of curricular processes.

The unduly optimistic, confident and even reductionist approach to planning illustrated in the preparation of educational plans, with no attempt to initiate and strengthen horizontal and vertical planning processes. This phenomenon has several connotations such as the disproportionate weight attached to analytical studies, assignment of major importance to the plan document, neglect of the other stages in the planning process and, in some cases, technocratic arrogance on the part of planners.

The rigidity and centralism of the plans, based on assumptions of homogeneity of both problems and their solutions, even in countries with geographically dispersed population groups reflecting a diversity of social, economic and cultural situations.

The limited ability of planning to bring about change in the face of new needs and changing circumstances in society. An example has been the prevailing mismatch between the products of formal education systems – on which planning has concentrated – and the needs of the labour market.

The widening rift between the planning exercise and the national political process, with a clear divergence between the plans presented as promises to be fulfilled and the actual process of discussion and decision-making that guides the action of the authorities on a day-to-day basis (Matos, 1987). This is perhaps the main reproach that has been persistently levelled in recent years against development planning in general and educational planning in particular.[4]

It should be noted, however, that many of these limitations and restrictions may be attributed not only to internal planning processes but also to the context in which planning takes place (political and administrative centralism, discontinuity of governments and policies, political paternalism, the imposition and transfer from outside of policies, models and even 'fashions', etc.).

Disillusionment with educational planning

The predominant educational planning model designed in support of a quantitative expansion in education due to the pressure of social demand ran into difficulties in the mid-1970s because of constraints originating both within and outside education systems. From the endogenous point of view, the model's weaknesses were revealed by the fact that available technical and financial resources fell increasingly short of needs. Severe imbalances were also generated by disproportionate quantitative growth in terms of the pedagogical and administrative – even social – aspects of educational expansion (social and regional imbalances in coverage, deteriorating quality and over-supply of qualified personnel).

External factors also had an overwhelming impact. The prevailing world economic crisis – engendered by the oil crisis – began to have an adverse impact, initially on the non-oil-exporting countries and, later, on the rest. Matters came to a head when foreign debt emerged as the most acute expression of the economic crisis in Latin America. The direct and indirect repercussions of the crisis have been clearly visible. Within education systems they can be seen in the form of stagnating and/or declining public expenditure on education with adverse effects on teachers' salaries and on investment, which was reduced to the minimum. Outside the systems there has been a deterioration in the economic and social circumstances of the neediest sectors, with repercussions on children's access to and continued attendance at school, on their performance and on the already few employment opportunities for young people who manage to complete a level of education (Tedesco, 1987).

During this stage of the economic crisis that dominated the 1980s, planning in the sector revealed its weaknesses and limitations and its poor ability to cope under conditions of crisis, poverty and austerity. This led to a loss of confidence in planning, which had its credibility eroded both in government circles and in other sectors of society.

It should be noted that more recently, as a result of the financial constraints on education, especially as regards investment, outside funding sources (particularly the World Bank and the Inter-American Development Bank) have begun to play an all-important role in some countries and in key areas of education. To some extent this had subordinated the sector's planning activities to the demands of the funding agencies, with all that that implies.

In addition to the internal crisis in education systems, exacerbated by the foreign-debt crisis, other associated or concomitant factors have made the task of educational planning more complex: changes in educational scenarios and actors, the impact of technological and scientific development, changes in value systems in society and in the family, the influence of new social forces and groups (minority ethnic groups), the growing importance of groups and associations in education, etc.

At the same time, educational planning in the region has had to contend with some particularly tricky problems, so far without much success. The first problem is financial constraints, especially in the public sector, in spite of the persistent trends in educational demand, particularly at the intermediate and higher levels. A further equally complex factor has been the growing dependence of policy decisions in education on political trends and forces, which has called for a realignment of strategy in regard to the planning process. In some countries an important role has also been played by the ideological radicalization of teachers' unions due as much to salary-related factors as to ideological polarization.

The wastage occasioned by a combination of factors has led to disillusionment with educational planning, at least the centralized variety. Nevertheless, it has to be recognized that in some cases action aimed at changing the situation has evolved into mediumand long-term trends. Some examples are:

- The move from predominantly quantitative planning to a form of planning that focuses on the qualitative aspects of education.
- The growing importance of decentralized and/or more evenly spread planning, giving a larger say to regional and local bodies.
- Promotion of social participation and its integration into planning processes.
- The growing importance of information systems as an aid to and input for decision-making.
- Consideration of planning as a systematic, ongoing process.
- Promotion of out-of-school education as a component of integrated educational planning (Arrien, 1988).

These and other new dimensions of educational planning have developed unevenly in the countries of the region. Two clearly defined social trends or models may be distinguished: one directed towards the restructuring of education systems and the other towards their modernization, that is, towards making them more dynamic, efficient and flexible.

Educational administration: a weak spot?

As already noted, in the 1960s and 1970s priority status was assigned to planning. It was assumed that proper planning – in the form of a sound plan – was a sufficient means of achieving aims and targets and channelling resources. This led to a lack of co-ordination between planning processes and those of execution and control. The former were guided by a technocratic idea of 'the way things should be' and the latter by a law of inertia consisting in the routine repetition of habitual modes of action.

The 1950s and 1960s have little or nothing to show in the way of progress in the administration of education systems. Some limited attempts were made to apply school administration techniques borrowed from the literature of the industrialized countries, in particular the United States.

In the late 1960s and to a greater extent in the 1970s, some countries tried to initiate processes aimed at the modernization of public administration and hence of the organization of central educational bodies. One effect of this trend was the 'centralized decentralization' of ministries of education involving the redistribution and separation of functions and activities through the setting up of decentralized educational bodies at the central level. The aim was to enhance the efficiency and relevance of some specific aspects of education (culture, sport, higher education, school buildings, literacy teaching, adult vocational training, etc.). This organizational structure – resembling a solar system – initially played a revitalizing and technically innovative role in some countries in terms of the mechanization and speeding-up of processes, the administration of resources and more searching development in specific fields of action. But in the medium and long term, alongside its advantages, this strategy also presents a number of drawbacks and limitations such as the fragmentation of the education system through excessive independence of policies and resources, bureaucratization of management and duplication or parallelism of functions and resources. Moreover, the structure of some of these bodies remained rigidly centralist, with little regional and local outreach.

But perhaps the most striking administrative phenomenon that emerged in the 1970s and became more pronounced in the 1980s was a decentralizing trend, no longer at the central level but moving gradually from the centre to lower levels (Arismendi, 1984).

This phenomenon was due to a number of factors. On the one hand, planning played an influential role, particularly through two strategies, sometimes interconnected and sometimes unconnected: the regionalization and the nuclearization of educational facilities. The former gave precedence to and focused on the regional level and the latter gave priority to the local or basic level. This process is as yet unfinished, and has not been sufficiently clarified in conceptual terms; it has given rise to different kinds of experiments that have not been evaluated (for example nuclearization in Peru and Colombia and regionalization in Argentina, Chile and Costa Rica).

In addition, a decentralizing administrative trend has emerged in two directions, one descending from the centre to middle and/or grassroots levels, reflecting a general trend towards decentralization of public administration, and another moving up from lower to higher levels as a result of the quantitative growth and technical improvements in the middle levels, which demand a greater degree of intervention in their own spheres of influence and greater independence in taking decisions. This current and prospective future trend assumes different characteristics and is based on different paradigms from country to country; it is associated with factors originating both within and outside the education system (size of the countries, historical importance of centralism, communication routes, the way in which a country is divided up politically and administratively, the availability of qualified human resources, the degree of involvement of regional and local authorities in the financing of education, etc.).

There has recently been evidence of modernizing trends in educational administration, though they have not yet succeeded in permeating rigid and bureaucratic educational management structures. Some examples of these modernizing trends are:

The changeover from manual to computerized procedures through the gradual introduction of computer technology into some management practices.

The introduction of new management techniques taken mainly from business administration, a tendency that has been impeded, however, by tradition-bound attitudes or political interference.

The appointment in educational administration of specialists in other disciplines or in education itself.

The growing involvement of the private sector and of non-governmental organizations in education, challenging the competence of the traditional educational administration.

As regards the theory of educational administration, considerable progress has also been made in the search for new approaches, backed up by advances in some of the social sciences and in administration and by the prevailing conditions with respect to administrative development in the region (Sander, 1990).

Prospects and future scenarios for educational planning and administration

Assuming that planning and administration are subsystems providing support for educational development, their future will be associated with the role that education is expected to play. Educational processes will in turn be determined in the future by the economic, demographic and socio-political situations prevailing in the region.

If the future of Latin America in the short and medium term is viewed in the light of an extrapolation of the trends that have emerged in the last decade, the resulting forecast is one of pessimism rather than of uncertainty: economic growth falling behind population growth, low savings and investment capacity, a continually declining share of international trade, an increasing 'social debt', accumulated deep-seated social imbalances that are tending to become more severe, obvious technological backwardness, and so on. Given all these factors influencing education and that education can help to remedy, it has to be concluded with Latapi (1990) that

> there is as yet no socio-educational theory of universal scope to explain the major problems now besetting educational development in Latin American countries or to offer guidance on ways of making education as vitally significant as it should be in the lives of the various groups in these societies.

We must in turn clarify the new theoretical, methodological and operational dimensions of planning and administration from the standpoint not only of the education sector but of the region's overall development, seeking both to remedy the shortcomings that have undermined them in the past and to tackle the new scenarios emerging in a world whose power bases, ideological structures and development paradigms are changing (Costa-Filho, 1988). Some current trends that are likely to persist in the immediate future would appear to point to the following factors:

A strengthening of the neo-liberal economic model based on free and highly competitive markets. This model implies, inter alia, a redefinition of the scope and role of the state, dismantling of controlled and centralized planning systems, competition in the supply of services in terms of efficiency and quality, etc.

The speed of technological change and its impact on economic processes, labour-market demand and even individual and social behaviour patterns.

The trend towards decentralization and social participation as a result of which grassroots bodies and organizations have a greater say in decisions concerning them.

The 'globalization' of the main educational problems and options, though this is a development that also brings to light the need to preserve regional identities and safeguard and strengthen the specific cultural values of each country or social group.

The strengthening of democracy as a political option, while underlining its social and economic dimensions with a view to maintaining balance between the different sectors of society.

Protection of the environment and its resources from the increasing depredation and pollution associated with industrialization.

The formation of new economic blocs and geo-economic associations that transcending national barriers, geographical frontiers, etc.

What are the possible implications of these trends in educational planning and administration and what challenges may they be expected to pose? The best way of answering this question is to examine some of the factors that may determine how priorities are ordered in the 1990s. As noted by Hallak (1990), the following may be viewed as criteria to be applied in assigning resources for education and training:

> (i) correcting imbalances, (ii) reaching the target of universal literacy, (iii) reducing inequalities of access to education, (iv) expanding the coverage, (v) improving the quality, and (vi) increasing efficiency in the use of resources.

In the light of the foregoing, the following points may be suggested as possible trends in educational planning and administration:

The design of planning processes that take into account new educational scenarios, new actors in education and the increasing pace of social change.

Predominantly future-oriented planning, especially through the use of simulated models for scenario-building, exploration of anticipated or unexpected changes, gauging of effects and influences of endogenous or exogenous factors, etc.

The introduction of new technologies into planning and decision-making processes, especially increasingly elaborate information systems.

Strong emphasis on a management approach to educational services, using criteria such as efficiency, relevance, quality and appropriateness.

Enhancement of administration and planning at the grass roots (local and institutional) level with a view to increasing the social participation of communities, the relevance and appropriateness of educational services, the feasibility of intrasectoral integration, and intersectoral and interinstitutional co-ordination.

Recognition of the fact that educational innovation is a permanent and integral part of educational development.[5]

To sum up, although the experience gained in educational planning in Latin America is extremely valuable, present circumstances and future needs make it urgent to carry out a thorough review of its traditional approaches and to search for new strategies.

Notes

1. In the last few decades, the social sciences have made an important contribution to the study and analysis of education in relation to development, both within particular countries and in a regional context. Perhaps the most important and comprehensive contribution has been made under the Education and Development in Latin America Project co-ordinated by German W. Rama, a summary report on which was published in two volumes by Editorial Kapeluz, Buenos Aires, in 1987.
2. Some milestones in this pioneering process were:

   The Second Inter-American Meeting of Ministers of Education held in Lima in 1956, which for the first time recognized the role that could be played by planning in educational development.

   The Inter-American Seminar on Overall Planning for Education held in Washington in 1958 under the auspices of the OAS and UNESCO, which addressed, in particular, the institutional, methodological, technical and financial aspects of educational planning.

   The meeting of Ministers of Education of Latin America and the Caribbean convened by UNESCO and the OAS in Santiago de Chile in 1962 to propose a Regional Educational Development Programme with a view to taking action on the educational proposals of the Alliance for Progress.

   The International Seminar on 'Problems and Strategies of Educational Planning in Latin America' organized by the newly established International Institute for Educational Planning (IIEP, Paris, 1964) to review experience in the region and explore new ways forward.
3. In this connection, one of the most important events was the Technical Meeting of Directors of Educational Planning held in Buenos Aires in 1986 to analyse 'the state of educational planning and new challenges'. Among more specific analytical studies, mention should be made of: A. Moncada, *The Crisis in Educational Planning in Latin America*, Madrid, Cinterplan/Editorial Tecnos, 1982.
4. An in-depth analysis of the recent situation of and trends in economic planning in Latin America was carried out by the International Colloquium on New Directions for Development Planning in Market Economies, organized by ECLA, ILPES and UNDP. Its most important conclusions were published in *CEPAL Review* (Santiago de Chile), No. 31, 1987.
5. The recent International Congress on Planning and Management of Educational Development held in Mexico City (26-30 March 1990) under the auspices of UNESCO and the Mexican Secretariat of Education, set out some courses of action for educational planning in the years ahead.

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Review and prospects of educational planning and management in the Arab States

Antoine M. Gennaoui

The purpose of this article is to take stock, briefly, of educational planning and administration over the last decade in the Arab countries and to outline future prospects in this area. Features covered are structural aspects, practice, mechanisms and relations between planning structures and administrative authorities in general, drawing primarily on the author's own experience of this sector and his knowledge of the Arab countries' development problems and secondly on documentation available in UNESCO and the International Institute for Educational Planning.

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Methodological approach

The Arab States have a common historical background and form a relatively homogeneous area in their civilization and culture but it was felt that a global approach would not be sufficient. In my view the difference and similarities of the countries comprising this region need to be studied from a less global (subregional) standpoint. In this case the traditional UNESCO presentation, though offering the advantage of being convenient and practical, seemed to us to be seriously inadequate. We therefore felt that a different type of subdivision was required for this very large and relatively heterogeneous area and the problem of what criteria to choose therefore arose. We opted for the following four: (a) a spatial criterion, (geographical contiguity); (b) socio-cultural similarities (life-style, prevailing type of social organization; historical openness to modernizing influences); (c) standard of living (in terms of per capita income); (d) pattern of education system, in other words the level of development of the education system itself and the original model on which educational administration is based. This gives the four following subregions.

GROUP 1: THE MAGHREB STATES

This group comprises the traditional Maghreb states and the Libyan Arab Jamahariya. Inclusion of the latter certainly weakens cohesion in this group but it seemed more logical to us than to put the Libyan Arab Jamahariya with Egypt and the Sudan, for example, in a group apart. Here we see socio-cultural homogeneity, geographical contiguity, a strong similarity in standards of living and a definite resemblance (except in the Libyan Arab Jamahariya's case) in educational patterns.

GROUP 2: THE NEAR EASTERN STATES

This subregion comprises Egypt, Iraq, the Syrian Arab Republic, Jordan and Lebanon. For historical reasons, there is considerable political interdependence between these countries. They opened up to modern civilization at approximately the same time. Furthermore, they constitute a unit with very strong geographical continuity and 'subregional' socio-cultural homogeneity (in ways of thought and value systems and, although there are considerable disparities in their living standards essentially due to difference in natural resources, their aspirations and life-styles are very close. With the exception of Lebanon, their education systems have been subject to the same influences and apply much the same solutions to educational problems.

GROUP 3: THE GULF STATES

This group is comprised of the Gulf Co-operation Council, that is, Saudi Arabia, Kuwait, the United Arab Emirates, Qatar, Oman and Bahrain. Their geographical unity, like their socio-cultural homogeneity, is obvious. Their living standards, too, are comparable and, although at differing stages of development, their education systems seem to be built on the same principles, governed by the same influences and driven by the same motivation.

GROUP 4: THE ARAB STATES SURROUNDING THE RED SEA AND THE HORN OF AFRICA PLUS MAURITANIA

This fourth subregion comprises the two Yemens,[1] Sudan, Somalia, Djibouti and Mauritania. Five of these countries are grouped around the Red Sea and the Indian Ocean. Similarities in life-style and standard of living are particularly marked and their education systems are at the same level of development and face the same problems. The present state of their education systems, their economic vulnerability and the similarity of their present economic situation justify the grouping together of these countries.

Education policies

In contrast to the somewhat stormy socio-economic and political conditions which it would take too long to analyse here, educational policies in the various subregions have been maintained; reaffirmed and pursued. According to a recent UNEDBAS survey[2] positive development in education during the last decade were as follows:

Progress was made in the democratization of education.

The ties between educational and socio-economic development were strengthened, emphasis being placed on linking education and the working world.

The educational content broadened to include issues involving cultural and national identity, and moral instruction.

The teaching of science and technology was promoted.

TABLE 1. Number of students in the Arab States by educational level

					Average annual growth	
Level	1980	%	1987	%	1980-87	1970-80
Primary	20 604	67.0	27 281	63.6	4.1	5.1
Secondary	8 692	28.0	13 448	31.4	6.4	9.4
Higher	1 468	5.0	2 159	5.0	5.7	12.5
TOTAL	30 764	100.0	42 888	100.0	4.9	6.4

Schools became open to their environment and community.

Programmes to eliminate illiteracy and to promote adult and non-formal education were intensified.

Planning was promoted at provincial and local level.

The main indicators point to some significant advances as Tables 1–6 show (taken from UNESCO, *Statistical Yearbook*, 1989, 1990).

At the practical level it was noted that the Maghreb states gave priority to the effective implementation of compulsory basic education – Tunisia, the Libyan Arab Jamahariya and Algeria in the early 1980s and Morocco as of 1986. The Near Eastern countries (Group 2) are following the same direction but are some way behind, except for Jordan, which has already made this reform and Egypt where it was brought in in 1988 and where the primary-education level had previously been shortened from six to five years.

In the Syrian Arab Republic and Iraq the reform is still at the project stage. In these countries priority is given to the universalization of primary and the diversification of secondary education as is the case in Egypt and Jordan.

The countries in Group 3 (the Gulf states) focused more on reinforcing educational structures (Kuwait, United Arab Emirates), extending primary education (Saudi Arabia and Oman), nationalizing the staffing of education and improving the quality of teaching.

The Group 4 countries, given the unfavourable context, were primarily concerned with maintaining the enrolment rates they had already achieved in primary education, developing technical education training teachers and administrators and continuing with their efforts to bring down unit costs. However, recent reports on primary education do not justify optimism. The combined impact of economic and financial difficulties coupled with political instability constitute a serious threat to the progress made so far. In fact, primary education is no longer holding firm as a defence against illiteracy. The decline in enrolment in Sudan and Somalia is critical.

Other countries which have not wholly consolidated their progress in this field are also exposed to this kind of difficulty. Given the relative inadequacy of their resources, the extent to which Morocco, Egypt and the Syrian Arab Republic are able to cope with the crisis will constitute a test of how solid their administration is and how far attitudes have changed, measured in terms of determination to hold on to the progress that has been made for the danger of a return to the past is not to be discounted.

In general terms the problems facing Arab countries as a whole may be classified under two headings: (a) problems generated by the rapid

TABLE 2. Gross and net enrolment rates by educational level in the Arab States

	Gross rates		Net rates	
Level	1980	1987	1980	1987
Primary	79.9	83.1	68.1	73.4
Secondary	38.0	49.3	–	–
Higher	9.5	11.3	42.9	50.8

not to say explosive (Algeria and Saudi Arabia) growth of the education system, insufficient co-ordination of the different factors of educational production and ill-adapted teaching; and (b) problems related to the internal and external efficiency and performance of the system and its adaptation to the requirements of development.

Problems in the first category are generally easy to identify and their solution is essentially a matter of finance, for example, the reform of vocational training in Tunisia or Kuwait, the reform of secondary curricula to include new concepts (population, health and nutrition) in Morocco, Egypt and Sudan, improved primary-teacher training in Morocco, the Yemen Arab Republic and the Syrian Arab Republic the shortage or poor state of secondary-school premises in Egypt, the relatively low pay levels in Kuwait and Saudi Arabia, the difficulty of recruiting primary teachers in rural Morocco, and so on.

The more structural problems, however, necessitate more radical reforms such as the adoption of basic education, the restructuring of technical education and vocational training, the decompartmentation and diversification of types of secondary education and the policy of broadening higher education, greater exposure to the private sector, etc.

As a guide to the general level let us take student/teacher ratios and failure rates – for both of which some data are available. The reduction in the student/teacher ratio is significant in Groups 1, 2 and 3 (except Oman). In the first two groups the number of students per teacher ranges from 25 to 30 and is therefore close to the average for the developing countries (29). In Group 3 (Gulf states) it is similar to that for the developed countries (19). In countries in Group 4 the situation is deteriorating rapidly (Mauritania, Djibouti and Yemen Arab Republic): in ten years the figure has risen from around 35 to 45–50.

TABLE 3. Secondary education in the Arab States, percentage breakdown by type

Type of education	Students		Teaching staff	
	1980	1987	1980	1987
General	87.5	87.0	83.8	83.7
Teacher training	1.8	1.7	2.8	2.5
Technical	10.7	11.3	13.4	13.8
TOTAL	100.0	100.0	100.0	100.0

In 1988 the rate of students having to repeat a class fell in total but remained high in Tunisia, Morocco and Iraq (about 20 per cent) and to a lesser extent in Oman and Saudi Arabia (12 per cent), Qatar (10 per cent), Mauritania (15 per cent) and the Yemen Arab Republic (17 per cent). The figure in Egypt, however, was excellent in spite of a poor student/teacher ratio and good in Jordan, Kuwait and the Syrian Arab Republic. Elsewhere only Tunisia still had a student/teacher ratio over 30 whereas Somalia was the only country in Group 4 to have a ratio below 30. However, the situation may have got far worse since that time.

TABLE 4. Estimated public educational expenditure in the Arab States

Year	GNP (%)	Per capita ($)	Index
1975	5.9	61	–
1980	4.4	112	100
1987	6.6	134	148

The profile of educational management

THE DEVELOPMENT AND GROWTH OF EDUCATIONAL MANAGEMENT

Modern public management is a recent development in all the Arab countries except for Egypt and often dates from the colonial period. Administrative structures were patterned on an authoritarian and centralized model and their hallmark was the efficiency with which they operated. Indeed they were invested with modern governmental functions.

Colonial administrations, however, did not expand sufficiently and the systems inherited by the newly independent Arab states suffered from the following basic ills: lack of co-ordination, a field of action confined to socio-political control and the lack of a specific identity (particularly in the Maghreb countries). The development of public management was therefore one of the major problems that the independent Arab countries had to grapple with.

On independence it was thus necessary to release the forces of development and to organize the transfer of responsibility for administration the sovereign state. That administration needed a project and a mission. Its project was the extension of is field of authority to the under-administered national territory and its mission was to expand the public sector.

Education was one of the areas that received priority. Urgent problems of access to education and the provision of staff and premises became imperative in the face of the strong demand, heightened by ambitious industrialization and economic and social development plans.

However, expansion of the education sector between 1950 and 1980 progressed at different rates in the subregions. The Near Eastern countries were the first to experience it in the early 1950s. Close behind came the Maghreb and Gulf states in the 1960s and 1970s. The Group 4 countries set out on the same road at the same time but with less ample resources.

The expansion was both cause and effect of the qualitative change in the conception and implementation of educational policy. The most significant point here is that the change represented the transition from élitist to popular education with development as its objective.

Expansion projects introduced by education ministers were quickly overtaken by the vigorous growth in demand which had to be met as far as it could be in inadequate facilities, using expedients like double or even triple occupancy, higher student-teacher ratios, etc. But it quickly became apparent that this expansion was accompanied by regional and social imbalances and, in most cases, quality suffered.

PRESENT EDUCATIONAL STRUCTURES

Formal education

Most Arab countries set about reorganizing their education systems in the 1960s and 1970s. They often adopted the 6-3-3 division except for Lebanon and Morocco which chose 5-4-3. Some reorganization has been taking place since the early 1980s, each system seeking its own internal equilibrium consistent with its past and specific demographic and cultural identity.

Current concerns in most Arab countries focus on a twofold objective: the universalization of primary education and access for primary-school leavers to the various types of secondary education.

As regards compulsory education, most Arab countries have tended to establish this by legislation, the period being six to seven years in some

TABLE 5. Estimated number (millions) of female students and percentage of total students by level of education

Level	Female students		Totale students		Increase in female enrolments (%)	
	1980	1987	1980	1987	1980	1987
Primary	8 429	11 598	41	43	6.3	4.7
Secondary	3 246	5 445	37	40	11.9	7.7
Higher	252	761	31	35	15.6	7.7
TOTAL	12 127	17 805	39	42	7.8	5.6

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(Iraq, Sudan, United Arab Emirates, Mauritania and the Syrian Arab Republic and nine in others (Algeria, Jordan, Bahrain, Kuwait, Egypt and Morocco).

However, compulsory primary education has not been institutionalized in every Arab country. Some (Qatar and Lebanon) have very largely succeeded in establishing primary and secondary education without making enrolment compulsory while others (Sudan, Mauritania, Yemen Arab Republic and Saudi Arabia) have not done so for a variety of reasons specific to the countries concerned.

Making school compulsory, however, does not always mean that the problems of access to education have been overcome or that capacities are sufficient; it is more the statement of an objective towards which the action of the authorities has to strive, witness the fact that, in some countries (Egypt, Morocco, Sudan and Yemen Arab Republic, certain social categories under a combination of various socio-economic or geographical handicaps are excluded from the education system altogether.

Another point is that the trend towards prolonging the period of compulsory schooling has been accompanied by the wish for greater relevance to socio-economic requirements in what is taught. Education focused on practical aspects thus seemed to be the answer to the problem of finding work for young people leaving school at the end of the primary level. Countries that have put this principle into effect (Algeria, Libyan Arab Jamahariya, Jordan, Somalia, Morocco, Democratic Yemen, Kuwait and Tunisia) believe that it provides a solid basis of knowledge for all students prior to reaching working age (15).

Varyingly systematic attempts at reforming education content have been made in some countries, for example the introduction of population regiects in secondary education in Tunisia, Sudan, Egypt, Yemen Arab Republic and Morocco or the teaching of environmental, health and nutrition regiects as in Morocco, Egypt and Sudan.

All these reforms seem to be based on a philosophy that is closely related to the problems of economic and social development in the countries concerned. No detailed review of how they have fared, however, has yet been undertaken.

Non-formal education

To a large extent non-formal education in the Arab countries means adult education. There is the adult literacy campaign in its traditional and functional forms and a very wide range of projects like the integrated rural development programmes in the Yemen Arab Republic, family planning in Sudan, community development, youth activities, social service, etc. There is also vocational training (or domestic science in some countries) including the basic education of the rural population. The target population is the over-fifteens living in both urban and rural areas.

The meaning of 'adult' in this context is very flexible. In actual fact adult programmes often admit children over 9 if they are no longer attending school. The remarkable thing here is the variety of the bodies involved. They may be classed under three main headings: (a) profes-

TABLE 6. Total enrolment, female enrolment and teaching staff by educational level

Level	Total enrolments		Total female enrolments		Teaching staff	
	1980	1987	1980	1987	1980	1987
Primary	124	164	134	184	133	199
Secondary	152	236	168	281	164	298
Higher	163	240	176	297	170	279
TOTAL	132	184	143	210	145	235

sional institutions like the unions (for training industrial and agricultural workers and government service staff, and training in activities for women, and crafts and household activities); (b) cultural institutions; and (c) socio-cultural and sports institutions.

There were some 6,000 such institutions in 1984, about two-thirds of them governmental, one-fifth private and the remainder mixed public/private. Three-fifths of them were educational, one-fifth vocational and the remainder cultural and social.

The main value of these bodies is that they form a platform for launching into other types of non-formal education, such as adult education, cultural guidance, vocational training and further education.

Non-formal vocational training is still marginal, ineffective and dominated by the formal education establishments whereas its original purpose was, precisely, to fill the gaps left by formal education in terms of its response to the requirements of the working world.

Further or continuous training was originally focused on primary and secondary teacher training. The idea of vocational training as understood in the developed countries is new to the Arab countries. Its first beginnings to back to the 1970s and it is only recently that any kind of philosophy in this area has begun to become clear in certain countries (Morocco, Egypt, Algeria, the Syrian Arab Republic and Saudi Arabia). In spite of everything; in general; resources and numbers involved in the non-formal sector are very slender.

Illiteracy

UNESCO's most recent estimates (1990) for illiteracy are daunting, varying from 20 per cent of the over-fifteens in Lebanon and Jordan to 76 per cent in Somalia, 73 per cent in Sudan and 66 per cent in Mauritania and the Yemen Arab Republic, the average being 49 per cent.

Projections for the number of illiterates foresee an increase from 61 million in 1990 to 72 million in the year 2000. Although in percentage terms the rate will account for most of this figure. Two-thirds of illiterates are concentrated in Egypt, Sudan, Morocco and Algeria. The following comments may be made about the different subregions over the recent period.

For the Maghreb countries the illiteracy rate is similar in the Libyan Arab Jamahariya and Tunisia. Algeria has a midway position (42 per cent) whereas Morocco is lagging behind in this field (50 per cent).

Progress has been made in practically all the Near Eastern countries, certainly in Egypt's case but above all in Iraq, the Syrian Arab Republic and Jordan. Lebanon and Jordan are clearly better than the average for the group whereas the rate of improvement in Egypt seems to be slowing down.

The Gulf states have a similar average (between 22 per cent for Bahrain and 37 per cent for Saudi Arabia). The illiteracy situation seems to be more or less stationary except in Saudi Arabia where it continues to improve. Possibly these countries are up against a barrier of sociological resistance as would seem to be suggested by the unchanging illiteracy rate among women.

The figures for the countries in Group 4 are critical. A national campaign for the eradication of illiteracy has been launched in the Yemen Arab Republic but results do not come up to expectations. The situation in Mauritania would appear to be improving slightly but that in Somalia and Sudan is serious given the deterioration in primary education over the last ten years.

It also has to be pointed out that the sometimes rapid decline in the illiteracy rate in some Arab countries is partly due to higher enrolment among the over-fifteens than in the past.

Lastly, even if we assume that there is effective regional co-operation, that the political will to tackle the problem exists and that the problems of financing and mobilizing human and physical resources are resolved (which is not the case at the moment), putting into effect a plan to eradicate illiteracy will have to cope with the major problem of the availability of reliable data for operational purposes (analysis, diagnosis and the organization and implementation of plans of action).

THE ORGANIZATION OF EDUCATIONAL MANAGEMENT SERVICES

Attempts at decentralization

Education authorities in the Arab countries are still, for the most part, highly centralized, mirroring in this respect their general political systems. In fact most Arab countries are still at the construction stage in the development of governmental powers. The principle of territorial and national unity, sometimes written into their constitutions, takes precedence over all others. Objective factors favouring centralization are still very powerful: the need for political and economic integration, ideological diversity, geographical and ethnic differences and regional disparities. The state is also the guarantor of a certain social cohesion through various functions it assumes. It addition there is a certain centralizing tradition in the Near East (Egypt, Iraq and the Syrian Arab Republic). There is no historical background for the organization of federal-type powers, and independence of authority at the local level is associated in the collective conscience with periods of weakness or even decadence in the central authority. So the idea of decentralizing administrative power is very recent.

Generally speaking, education is managed at two levels – central and local (or provincial). Where there is a regional government (as in Sudan) or the contours of an economic region are taking shape, a third 'regional' level is arising. In this case the region anticipates, so to speak, a future economic unit. This applies in the case of Morocco, Tunisia, Algeria and perhaps Jordan as well.

But most countries operate on the central/provincial model, tempered by a blend of deconcentration and decentralization. Administrative reform is primarily designed to moderate the excesses of centralization by lightening the burden on the central administration and delegating powers to the local offices. This is the case in Saudi Arabia, Iraq, the Syrian Arab Republic, Sudan, Egypt, Algeria and Morocco.

All in all, significant advances have been made in the reorganization of education authorities. The work done over the last ten years on designing structures and legislating for, regulating and setting in place those structures has been very considerable. The principle of delegation has been accepted everywhere. Its practical application, however is still in the early stages and has yet to be consolidated in practice.

Also, the territorial structures still have to be defined and clarified. However, the predominant model for relations is that of hegemony and central control. In no country does the region or province yet have its own tax-raised income on any scale (local taxes for example). This lack of a specific financial basis for a region or province is a hindrance to decentralization

What is more, the majority of administrative reforms are handed out by the centre. They do not necessarily correspond to a crystallization of aspirations or local awareness. Experience shows that habits of guardianship and the assumption (or non-assumption) of problems by the central administration are in most cases an obstacle to decentralized management particularly where those governed (after decades or even centuries of centralism) finally have the automatic reaction that the administration does not depend on them, still less belong to them. It is difficult to see how, in that case a regional counterweight to the central authority could develop and operate in the short term.

Greater exposure to the private sector

The relatively minor importance of the private sector in the education systems of the Arab countries, except for the Libyan Arab Jamahariya, is as much due to the legacy of past history as to events in the 1950s and 1960s. In the 1960s and 1970s for example; the prevailing trend was primarily to consolidate official education and standardize and nationalize private education (Syrian Arab Republic, Morocco, Tunisia, Egypt, Iraq, etc.). This situation has changed slightly, at least in certain countries where the private sector has been called upon to play a greater part. This has taken the form of specialized departments set up by the education authority to make the most of the potential of this sector in educational planning and the framing of policy. The desire to have codes of law for private investment in education is enlightening (Egypt and Jordan). In a general way, the officials responsible for public administration are beginning to recognize the limits to which public education may be expanded and are therefore gradually conceding a greater role for the private sector at all levels.

While it is true that the share of the private sector in primary education is still marginal, it is predominant practically everywhere in pre-school education in its religious (Koranic) or modern form. It is significant at the upper-secondary level in countries where compulsory education is confined to the primary level. It is certainly not insignificant at the secondary level and could soon make its appearance in higher education.

Apart from Lebanon, an extreme case with a majority private sector, the countries most committed to this approach seem to be Morocco, Jordan, the Gulf states and Egypt. Conversely, Iraq, the Syrian Arab Republic and perhaps Algeria appear, at the moment, to be offering the most resistance. The fee-paying private sector accounts for about 2 per cent of enrolment. Its sponsors are private individuals and popular organizations. Its licensing, operation and curricula are strictly monitored.

In conclusion, even if primary education still remains the prerogative or even monopoly of the central governments, the latter have every intention of authorizing the private sector – or even encouraging it through tax or other financial incentives – to play its part in achieving national objectives while still exercising their control over the content of education, financial conditions of access and exercise of the function of teaching.

ADMINISTRATION, REFORMS AND TRAINING

The management of education operates in a general administrative context and its reform therefore partly depends on that of the system as a whole, which is both an active agent and something to be striven for, mastery of which secures power over the socio-economic and cultural life of the country. Any reform of the administration therefore presupposes a measure of political will.

Unfortunately the context of political and economic instability has not been conducive in most countries to large-scale administrative reform. The first priority was to manage what existed, which seems to suggest that administrative reform was not a priority. Even so, the background of crisis prompted and developed varying reactions. In spite of this lack of clarity, it is possible to identify a number of attitudes varying with period and country:

The maintenance of the status quo, that is, hesitation or refusal to take decisions, generally implying no change in educational structures and policies.

Crisis management, that is, budget cuts (no more recruitment or employment of graduates), cuts in investment, rationalization and revision of the operation of the education system where this has a direct financial impact.

Review of parts of the system structures if this brings indirect operational or investment economies (changing the number of years of compulsory education, reducing the number of repeaters, encouraging the private sector or recourse to outside assistance) or improves administrative methods (computerized management, data systems).

Oversimplifying, it may be said that although the Gulf countries were able to absorb the effects of the crisis at the level of the functioning of their education systems, the external context tended to favour a certain structural inertia except perhaps in Saudi Arabia where the system continued to expand. The Maghreb states were also able to introduce certain reforms (basic education, decentralization) in spite of the crisis. They now need to be consolidated. In-depth structural reforms have been more difficult to achieve in the Near East and management of the crisis and the short-term situation took priority. The countries in Group 4 are still in the throes of the crisis and any large-scale reform there would seem impossible.

None of these reforms has really overturned the internal power relations between administrations and traditional value systems. For example, argument and discussion have continued practically everywhere to be in terms of hierarchy and functions rather than activity and responsibility.

Above all, the characteristic feature of education authorities has continued to be their bureaucracy and excessive formalism, whose rigid procedures paralyse initiative and obstruct action.

Low rates of pay for administrative officials in the Near-Eastern countries and Sudan in particular have also done nothing but worsen the situation and given the mechanisms of inefficiency and emigration a stronger hold.

Administrative formalism is further amplified by the lack of importance attached to the in-service training of administrators; the principles of management, effectiveness, efficiency, planning, rationalization of decisions and evaluation are still rarely applied.

Educational planning

DEVELOPMENT AND GROWTH OF PLANNING STRUCTURES

Although the concept of planning was new and motivating in the early 1960s, its introduction did not take place everywhere at the same time and in the same manner. Its development, too, varied from country to country. Generally speaking, the Near Eastern and Maghreb countries went in for planning at an earlier date and to a wider extent. The first planning units there came into being because of the coexistence of a number of favourable circumstances: the vigorous growth of the education sector, the political will to opt for planning, the wish of United Nations organizations to promote planning in national administrations and, lastly, the availability of qualified staff, generally statisticians and economists.

In the Gulf countries, planning was introduced only later and its structures developed at the same time as the education system itself. Lastly, in the Group 4 countries, educational planning made a timid entry in the 1970s and 1980s, particularly with the surge forward in primary and secondary education.

Planning structures

RESPONSIBILITY FOR PLANNING DEPARTMENTS

There are two models for the way in which education planning departments are attached to the ministry for national education. In the first, the planning units are directly responsible to the minister (Saudi Arabia and Iraq) and in the second they come under the authority of the secretary-general of the ministry (Algeria, Tunisia, Egypt, Morocco, United Arab Emirates, Yemen Arab Republic). Direct responsibility to the minister himself may demonstrate the authorities' wish to attach special importance to the position and thus assert its importance in relation to the other departments in the ministry. In such a case, the planning function would be seen as a policy-making aid.

The second model is more traditional and may mean that the department is already well integrated in the regular day-to-day work and has carved out its role and place in the system.

The planning department's internal structures are most usually in the form of a ministerial directorate with its own statistics, research and sometimes enforcement sections. The planning function may also be performed by a directorate responsible for technical affairs (Yemen Arab Republic), financial and administrative affairs (Kuwait, United Arab Emirates) or international relations (Sudan). The differences in the rights and duties of specific planning departments are not always meaningful, being more the expression of short-lived changes and/or the interplay of influence and power between government officials than of a given organizational doctrine.

The co-ordination of planning activities

In spite of the differing degrees of development of planning departments in Arab countries there seem to be practical similarities in the way they operate. For example:

The Maghreb and Near Eastern countries are similar in the internal co-ordination of their work.

The planning directorate in Morocco co-ordinates the planning activities of central and external offices. It also maintains links with the other educational and administrative directorates and is the channel of communication with the planning and finance ministries.

In the Syrian Arab Republic, the planning department co-ordinates the preparatory work for the educational plan, which is carried out on its instructions by the different types and levels of education and teacher training.

Besides its role of direction and co-ordination, the planning department in Kuwait seems to be particularly involved in relations with the consultative bodies of the education and planning ministries.

In Sudan, on the other hand, the only planning in existence at the moment is for higher education.

In all countries there are other institutions outside the education ministry and various advisory bodies involved to varying degrees in the planning and management of education.

The logical sequence of the process and its different stages

In all the Arab countries the planning process seems to take the following logical sequence. The startline is an analysis of the situation of education in the base year for the new plan. Demographic and statistical data are then considered and enrolment projections made by age group and/or region. Then comes the comparison with socio-economic data so that all the sectoral employment requirements implicit in the economic and social development planning forecasts can be taken into account in setting the targets for the education system. Forecasting human resource needs still seems to be a difficult task for many Arab countries because of the poor quality of the data available, the inadequacy of the calculations and the lack of realism in the planning goals. The use of projection techniques is common, enabling targets and projections to be matched.

Once the draft plan is approved by the policy-makers the implementation process begins. In most cases the plan is broken down into annual part-plans, generally used as a framework for annual budgets. This is rarely an in-depth activity and the relationship between plan and budget is often very loose.

In theory, the various units in the education ministry take part in drawing up the plan and there is a specific executive organ for each of its individual parts. Some missions call for co-operation between a number of inter- and intra-ministerial bodies in the administration.

Implementation differs from country to country. Some, such as Saudi Arabia and Kuwait, have separate units to monitor implementation whereas others, like Algeria, the Syrian Arab Republic, Egypt and Iraq, make the executive departments responsible. The strictness of this enforcement activity may indicate how mandatory the plan is.

Assessment is generally left until the plan has been implemented. It is used as a basis for the drafting of the next plan and covers both quantitative and qualitative aspects to varying degrees. The extent to which resources and objectives have been matched is also brought out.

It would not, however, seem that assessment is a systematic or sufficiently thorough operation. On the contrary, the requests for evaluation made to the international agencies by the Arab countries suggest that it is not performed in a satisfactory manner. In practice, too, countries differ in the depth to which they take the different educational planning and management functions.

Some Gulf states, for example, see and practise planning as a technique for the collection and processing of data and the implementation of projects. The intervening analytical stages are regarded as less important, so that the decision-making function does not appear to be derived from the planning process but imposed from outside.

In another approach (in the Syrian Arab Republic for example) the analytical function (from formulation to management analysis) is more highly developed, implying that planning is more highly institutionalized. The integration of the decision-making function suggests that certain decisions of varying importance are taken in the light of the planning process.

Educational planning techniques

Econometric techniques used for educational planning are relatively elementary and only primary effects are generally taken into account. Cost-benefit analysis is rarely used.

A certain confusion is also apparent on the subject of educational investment. The idea of human capital is mentioned but rarely elaborated upon. Sometimes the proclaimed resolve to rationalize educational investment and expenditure fails to have any effect because of the incomprehension between educationists and planners due to the almost invariable prevalence of the attitude that education must not be influenced by economic considerations.

The most widespread techniques are those of quantitative projection. Past trends are extrapolated with certain adjustments or modifications. Countries where planning is now part of the culture (e.g. Egypt and Morocco) sometimes, and to a limited extent, use sophisticated statistical techniques and simulation models.

To our knowledge, no specific sectoral model exists for educational development in the Arab countries. EIPDAS is apparently looking for a flexible educational model that could be applied to the countries in the region. Lastly, use of long-range forecasting is very limited.

Old planning problems and new responsibilities

By intensifying the factors of instability, the economic crisis is changing the basic data. Planning has to produce better results with the same resources or aim at the same targets with reduced resources. These new constraints affect most Arab countries regardless of their resource endowment.

But better management requires better training and a better information system. So government services need qualified and properly trained managers. These new constraints impose new requirements for the training of senior educational planning staff in management, evaluation, budget control, etc. Administration also need data designed and organized in relation to the evaluation, efficiency and output objectives that are proposed. Unfortunately, today's information systems in the Arab countries are geared more to the needs of quantitative expansion and are sometimes ill-adapted to the functions required for the systematic control of the efficiency with which educational factors of production are used. Hence the need to produce new data for the requirements and situation of each country. Particular needs, especially for the countries hardest hit by austerity, are to devise and set up indicators for evaluation and short-term management functions and to train administrators in their use.

To sum up, therefore, the need for autonomy as well as the need for consultation and agreement are the new factors that planning has to adjust and respond to in the Arab world. Unfortunately, attitudes and thinking on this subject in the Arab countries seem to us to fall short of aspirations.

The training of officials responsible for planning and administration

UNDERESTIMATED TRAINING REQUIREMENTS

It is clear from the UNEDBAS survey that the number of senior staff with planning responsibilities is very low, that most staff have no initial qualifications and that the number of specialists with degrees in educational planning is very small. This low percentage of qualified and specialized staff (about 25 per cent) is probably offset by the use of technical assistance where possible or by the further training of officials. In the main, initial training is given by the universities, while further training is provided in the ministries or in public management institutions.

The above information about the training of planning staff in fact covers only a certain proportion of the staff engaged in planning activities. To these must be added the officials in the departmental services and educational-planning units in the other ministries concerned (higher education, culture, etc.). Mention should also be made of the planning units for specialized education which are often the responsibility of technical ministries (industry, agriculture, public works, health, defence) which manage certain institutes or training centres. The population of planning staff thus far exceeds the few hundred officials covered by the survey.

It needs to be pointed out that the Arab education systems' potential for expansion is by no means exhausted. Six or seven of these countries now have universal primary education, but for most of them this goal is a long way off. The scope for expansion is still considerable in Egypt, Saudi Arabia, Oman, the two Yemens, Sudan, Somalia and Mauritania. Potential exists in general and also technical secondary education. Lastly, improved quality would not necessarily mean an increase in administrative and teaching staff. What is more, if the Regional Programme for the Universalization of Primary Education and the Eradication of Illiteracy (also called the Major Project), launched by UNESCO in 1989, is applied it will necessarily bring an increase in planning and management work, particularly in the non-formal sector, and will therefore create more demand for planners and administrators.

In short, improving the quality of education, universalization of basic education, the eradication of illiteracy, and greater control over the development of education by management and planning are all factors that could be the source of potential growth in the administration and planning sector.

INSUFFICIENT REGIONAL TRAINING CAPACITY

Turning now to the supply side of the training of planners and administrators at the regional level it can be seen that the training structures are of several kinds:

The education system's secondary teachers, inspectors and administrators are trained by the universities. In the main, the training given is initial theoretical training, but further training courses in administration have been developed. The university tradition for the training of senior staff is predominant in the Near Eastern and Gulf states.

Administrative training institutes and organizations for public service staff are of recent origin (Jordan, Morocco, Saudi Arabia, Iraq and Algeria). They provide both initial and further training.

Planning institutes generally offer both annual programmes and further training courses for officials already in jobs. Their sphere is economic and social planning as a whole; educational planning being just one option. Only minor importance is therefore attached to this subject.

The education, higher education and planning ministries all provide further training for education administrators (the United Arab Emirates, Bahrain, the Syrian Arab Republic, Qatar and Kuwait) and planners (Sudan, the United Arab Emirates, Jordan, the Syrian Arab Republic, Iraq, Qatar and Kuwait). It is true that, up to now these institutions have met part of the training needs for planners in the education ministries of the countries concerned but the number of education planners and administrators that they have trained is very small. This insufficient coverage of requirements suggests that some of the training demand is met outside the country. The shortage of qualified senior staff would appear to be a major cause of the Arab countries' weakness in the educational planning field.

The prospects for regional co-operation in educational management and planning

THE ACTIVITIES OF UNESCO REGIONAL STRUCTURES

When EIPDAS was set up by UNESCO in 1979 it was part of an ambitious scheme, one object of which was to modernize the administration of education and to develop a regional network for the exchange of experience in the field of education and training.

From the outset, EIPDAS set itself the task of being the link between Arab national and subregional educational establishments, spurring countries to set up their own co-ordination centres so as to form a regional network for the exchange of information, and itself joining a world exchange network, thus forging the remaining link in the national-regional-international chain.

But the task of running and supervising national and regional institutions is clearly impossible given the kind of human and material resources currently assigned to it. Scrutiny of the proposed EIPDAS plan of action for the period 1989–92, particularly in the administration and planning area, reveals the gap there is between its ambitions and the resources available to achieve them.

In fact, for the most part, EIPDAS activities (signing up correspondents at national and regional level, starting up the network, launching case-studies, organizing national and regional workshops) are more in the way of preliminaries. If it is to get beyond the stage of good intentions, this structure will have to be given the resources it needs for its activity to meet requirements in terms of the spread and promotion of innovation.

In addition its activities will need to be more closely harmonized with those of UNEDBAS so that complementarity between UNESCO agencies is effective and operational.

THE EMERGENCE OF SUBREGIONAL ORGANIZATIONS

ALECSO and ABEGS (the Arab Bureau of Education for the Gulf states) - subregional office of the Gulf Co-operation Council - were both set up in the 1970s. The Islamic Educational, Scientific and Cultural Organization came into being in the 1980s. In 1987, the Maghreb countries (Morocco, Algeria and Tunisia, for their part, agreed on a closer relationship that brought the beginnings of co-operation in the education sector (intention to harmonize curricula, exchange of teachers and information, joint educational research, etc.), facilitated by the similarities in their education systems. The Conference of Heads of State of the countries of the greater Maghreb (including the Libyan Arab Jamahariya and Mauritania) in 1988 also proclaimed this policy of subregional co-operation. In 1988 too, the countries in the Arab Council of Co-operation (Egypt, Iraq, Jordan, and the Yemen Arab Republic also announced their intention to co-operate in the field of education.

These specialized institutions are already, or may become, active participants in co-operation and the promotion of educational projects. In this way, new resources can be mobilized for specific education projects in the countries of the region.

THE MAJOR PROJECT AND REGIONAL CO-OPERATION

UNESCO and ALECSO activities have often had the same objectives and in some fields, for example, the organization of the last Ministerial Conference in Abu Dhabi in November 1977, the two have collaborated. That conference adopted a set of recommendations concerning the universalization of primary education, the eradication of illiteracy, adult education and the strengthening of administrative and planning structures in the Arab countries.

These recommendations were taken further at the regional level when the Exceptional ALECSO Congress (Khartoum 1978) adopted the report entitled 'Towards a Strategy of Renovation in Education Within the Context of the Integrated Development of the Arab Nation', whose implementation target date was set at 1995.

As things now stand, it seems that concrete organization and planning problems are likely to arise in the implementation of the Major Project. The first has to do with the links of co-operation and co-ordination between ALECSO and UNESCO regional projects in the same area and with the same object. UNEDBAS and ALECSO regional conferences and meetings held during the last ten years have been consistently concerned with the problems of primary education and have been consistently concerned with the problems in this area, first by ALECSO and later by UNESCO.

The approach to the problem has also changed with time moving from a strategy based on primary education to one embracing non-formal education. More recently (in 1987) the problem has been viewed from the angle of global and co-ordinated strategies. Differing target dates have also been proposed: first 1990, then 1995 (by ALECSO) and finally the year 2000 in the Major Project.

These are indeed crucial projects for the Arab world. But what, it may be asked, justifies the optimism of their authors? The results of the survey presented at the ALECSO Congress in Alexandria in 1984 showed how great the gap is between what is planned and what is achieved a gap that has been read as a sign of serious difference in perception and interpretation of the objectives adopted by the countries concerned.

Above all, however, the feeling that arises is that there are too many rather than too few regional projects and that the shortfall is more in the field of preparation and implementation. The multiplicity of projects creates the danger of duplication, rivalry and even divergence, all implying additional costs impairing the efficiency and credibility of the various regional bodies. This has to be faced and it would therefore be useful, before anything is done, to make sure of the commitment of the various national authorities in the light of their capacities and their real resources. This is vital to the success of the Major Project. Given the fact that this concerns a population that is similar in its socio-economic and cultural characteristics, effort should perhaps be concentrated on defining the objectives of the national plans (which would take account of concrete implications at the national level for the year 2000) and then on looking for various forms of subregional co-operation in this field (Maghreb, Gulf states, etc.) which, at a later stage, would enable the various subregional plans to be brought together in a relatively credible and realistic overal, regional plan.

The second problem concerns the internal coherence between the scale of this project, expressed in terms of quantitative and qualitative targets, and the subsequent proposals for the training of the implementing personnel (designers, planners and mangers) and anyone else concerned.

At the administrative level, an intensive effort will be required to activate and mobilize the institutions and organizations of every country (technical ministries, the public sector, trade unions and employers' organizations, and socio-cultural bodies, etc.). It will also be necessary to institutionalize participation and deconcentration in order to involve local participants in the project. Considerable management capacities will also be called for in every country – far in excess of the Arab States' present potential in the way of managers, regional and national planners, administrators, heads of establishment, counsellors and other specialists – as will a very serious planning exercise.

Prospects for the future

Questions concerning the future of educational planning are closely bound up with the socio-economic future of the Arab countries. To try to glimpse this future, we must accept the hazards of linking together, in a reasonable dialectic, the various levels (economic, political and cultural) of the social dynamic. Here we shall simply formulate a number of assumptions on which a reply might be based.

ASSUMPTIONS

Oil and gas currently form the main wealth of the Arab countries. During the present decade, oil prices may be expected to fluctuate about an average of $18 a barrel or to rise gradually to $24–25 a barrel if growth in the developed countries is sustained. It is also reasonable to suppose that the world, and Western Europe in particular, in spite of the changes in economic strategy towards the East European countries, will continue to take vast quantities of Arab oil. On that general assumption and with the emphasis varying according to the different groups of countries, the Arab economies will avoid marginalization and participate, some more some less actively, in the increase in growth generated by the imminence of 1993 and the Single European Market and the general trend already evident towards closer relations with Eastern Europe, possibly to the detriment of some parts of the Third World such as sub-Saharan Africa. Thus the rate of economic growth – and growth in the resources assigned to social expenditure including education – could well outstrip that of the growth in population.

EXTREME SCENARIOS

Against this background, what are the prospects for education policies and systems? There are two possible extreme scenarios, both bound up with the Major Project, depending on how the situation develops in the Arab region.

In the first, the Major Project would prompt forceful recognition of intra-regional interdependence and the need for solidarity and a readiness to pick up the challenge. In that case it would become the expression of a political will to take Arab civilization a stage further by giving absolute priority to the qualitative leap forward. The Project would be the theatre of regional co-operation embracing the many countries that are still so far behind in this respect. This would be the scenario of change. It would require broad consensus on the role and content of education. The conditions applying to the creation and spread of innovation would be drastically but positively changed by the environment of co-operation. Illiteracy would probably be overcome and primary education universalized by the year 2000.

Individual countries would also continue to apply their own education policies designed to enhance the quality of basic education, improve teacher training, expand science teaching at secondary and higher levels and develop research in the universities. Co-operation in other fields (research, curricula, etc.) would also be easier to promote in such circumstances. It would mean that the rich countries would have to be prepared to finance a large part of the Project, whose implementation would also depend on the participation of the Near Eastern and Maghreb countries in providing staff.

The scenario representing the other extreme would be the continuation of past trends: clinging to a narrow nationalism with more concern for rhetoric than action. In fact, this scenario would be a flight from reality given the cultural and human interdependence of the Arab countries. It would mean weak regional co-ordination and co-operation, unequal development of education between and within subregions, considerable illiteracy even at the dawn of the third millennium, continuing obstacles to universal education, bottlenecks in technical education and vocational training in many countries and a deterioration in higher education.

Other scenarios between these two extremes are obviously possible, even probable, and could operate or alternate depending on the situation. The possibilities thus range from the wholly unchanged continuation of past trends to overcoming the inertia of the present and a new drive towards an ideal situation or some combination of the two. They clearly take no account of the storm-clouds menacing the peace and future of the Middle East: a highly pessimistic scenario allowing for the possibility of war would imply the reversal of the considerable progress that has already been made and jeopardize, perhaps for a very long time, the prospects for progress in education in the Gulf and Near Eastern states.

CONTEMPORARY ARAB PERCEPTIONS OF EDUCATIONAL PLANNING

What would become of Arab educational planning in all this? What new role would it be assigned? The truth is that there seems to be no agreement among Arab experts (except possibly in the Maghreb) on the role of either the educational planner (as practitioner and theorist) or educational planning (as a method of action or a system of knowledge).

For one school of thought, the place of the planner in the decision-making circuit and the effective weight he carries with policy-makers, government departments and civil society as a whole varies with how his mission is perceived, ranging from that of a manager with a budget that he has to spend in the best way possible to that of the inventor of a future society with resources at his command matching the projects in view, via that of a strategist with limited freedom of action in his field of activity.

This somewhat over-simplified definition raises the question of the relevance of the plans that are formulated and the role of the planner in relation to policy-making, a relevance which is often questioned by Arab education specialists. For them it is a source of frustration, to say nothing of the misunderstanding, incomprehension and even hostility that planning sometimes arouses among administrators, educationists and even the general public.

Arab planning has admittedly experienced failures in the past. Taking into account what has been achieved, its impact has not been conclusive by any means. Belief in the value added it can contribute has shrunk for many actors on the social scene. And yet its failures are more to be ascribed to the weakness of its institutionalization, the fragmentary and routine nature of the process and sometimes the lack of conviction and resolve on the part of certain policy-makers who are basically hostile to planning. Its inadequacies may be put under three headings.

The administrative context

Planning has not always found the public service favourable ground to take root in, difficulties being excessive staff mobility and lack of motivation (ill-paid, ill-considered and ill-trained), pressure from parallel authorities (pressure groups and parties) and low credibility in general. With one thing thus leading inevitably to another, the administration of education has accumulated a large number of handicaps in many countries (Syrian Arab Republic, Lebanon, Sudan and Egypt).

The planning horizon

Because of the present world situation, the fact that almost all technology is imported and the incessant pressure of social demand, planning horizons in many Arab countries are relatively close compared with the time-scale of the learning period. Planning has been more concerned with short-term gains than looking to the future. It now, therefore, needs to change to a kind of planning that takes more account of time, uncertainty, the reversibility of phenomena and the behaviour of members of society. This will require training in, and wide use of, forecasting techniques as a systematic management method at all levels, including the decentralized offices.

New or neglected areas

Planning in the Arab countries needs to consider certain fields that it has so far disregarded and some new concerns arising out of social development. In particular, it should think about: (a) the organization of non-formal education in all its forms and its linkages in various contexts with formal education; (b) the meeting of manpower requirements in the 'non-formal' sector, which is growing in the present situation of crisis; (c) private-sector projects, bearing in mind changes in the population's needs and aspirations and this sector's potential and capacity to meet them; (d) the wish for independence of basic communities and regions and therefore the introduction of procedures for communities and regions and therefore the introduction of procedures for communication and consultation to improve efficiency and achieve greater parity between periphery and centre; (e) the quickening pace of urbanization and its implications for the content of education; (f) adjustment to the environment; (g) organization of the family and economic activity; (h) the inter-Arab migration dimension; and (i) certain specific problems which may arise here or there such as biculturalism, already recognized or about to be recognized.

Beyond these concerns, the existence of the Major Project throws down a challenge to regional and national planning, as we have seen, and the sort of planning adopted will be influenced by the scenario selected for putting the Project into effect. The co-operation scenario would lead to mechanisms for national and regional link-up and co-ordination in the planning and management fields. It would also require a large-scale training strategy in those fields. The other scenario would simply consolidate the present isolation of national planning activities, the lack of any real regional planning and the inadequacy of national and regional training policy. ■

Notes

1. This paper was prepared and presented prior to the unification of the two Yemens on 22 May 1990 and obviously before the Gulf War.
2. Ed-87/SENIOR OFFICIALS/3, June 1987.

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Commonality among diversity

A review of planning and administration of education in Asia

Cheng Kai Ming

Introduction

It seems justified to begin this article by quoting from a recent UNESCO report (UNESCO/PROAP, 1989*b*, p. 1):

> The huge area defined as UNESCO's Asia and Pacific region, extending as it does from Turkey in the west to Samoa in the east and with national populations that range from 150,000 to a billion – is so culturally, demographically and economically diverse that a survey of [education] . . . in it almost defies imagination.

On the one hand, there is China, with a population of over 1,100 million, and with a per capita GNP of $330 (World Bank, 1990). On the other hand, there is Brunei, a country with a population of around 240,000 but with a per capita income of $17,000. The region is also one embracing many cultures: the more visible being the Confucian, Indian and Islamic cultures, plus Australasia with its prevailing Western culture. Therefore, this article does not pretend that there are trends that can be applied to all countries in this vast region. Nevertheless, heterogeneous as it is, the region does display certain identifiable common attributes among countries in their educational development.

Economic background

In terms of economy, the region includes highly industrialized countries, such as Japan, Australia and New Zealand, the Newly Industrialized Economies (NIEs), for example, Hong Kong,

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Prospects, Vol. XXI, No. 1, 1991

Singapore and the Republic of Korea, the advanced developing countries (Thailand and Malaysia), the less developed countries (including China and India) and the small countries (mainly in the South Pacific).

Despite the wide range of economic systems and the difference in levels of development, the past decade has witnessed general progress in most of the countries in the region. Between 1980 and 1988, the average GNP growth of the developing Asian countries was 7 per cent per annum, comparing favourably with the world growth-rate of 3 per cent and less than 2 per cent in developing countries in the same period (Asian Development Bank, 1989, p. 2).

Among the countries, the NIEs, despite minor readjustments, experienced growth-rates of 10.7 per cent, 11.8 per cent and 9 per cent respectively in the years 1986, 1987 and 1988. The South-East Asian countries were also impressive in rising from a growth-rate of 3.2 per cent in 1986 to 7.2 per cent in 1988, mainly attributable to industrial growth. They are likely to challenge the position of the NIEs. On the other hand, the South Asian countries saw their impressive growth of 7.8 per cent in 1988 mainly as a result of the recovery in agricultural output. The most noticeable growth was still China, with a rate of 11.2 per cent in 1988. The South Pacific countries also recovered from declines in previous years (Asian Development Bank, 1989, p. 2). The general healthy economy underlies the various national education reforms to which we shall return later.

Human resources

A remarkable characteristic of the region is perhaps the tradition of emphasis on human resources. Such an emphasis had existed long before Western human-capital theories came into being. It is perhaps attributable to the Confucian and Indian traditions in their broadest sense, which place a high value on education. As is observed by the Asian Development Bank (1989, p. 159):

> Because Asia has developed these values over a long period of time, their understanding is essential to an analysis of human resource development in the region. These social values differ substantially among Asian countries, but are as important as formal and non-formal education in the development of attitudes toward work, saving and investment.

Such values are commonly believed to have contributed to the progress in many Asian countries, as is also perceived by the Asian Development Bank (1989, p. 153):

> An examination of the postwar economic records of the countries classified as newly industrializing economies (NIEs) and the more advanced South-East Asian countries reveals that human capital formation has been a crucial underlying factor in these countries' growth. Examination also shows that education and skills became increasingly critical as these countries approached industrial maturity. . . . Indeed, what spells the difference between good and poor economic performance is the manner in which human and physical capital and technology are organized. . . . Additionally, significant progress in the task of reducing poverty can be made by paying attention to human resource development and utilization, as was the case with the more successful Asian economies.

This assertion is to some extent confirmed in UNDP's Human Development Report (1990), where in terms of HDI (human development indicator), countries in the region often rank higher than they do in terms of GDP. This tradition contributes to a general enthusiasm for educational development in many countries of the region. However, such enthusiasm is often offset by population and employment problems.

POPULATION

The population of the region accounts for more than half of the world's population, and is likely to grow even larger. Table 1 gives a summary of data available from twenty-six countries and territories in the region. It can be seen that the population of the region will have almost doubled in the four decades from 1960 to 2000. Population

TABLE 1. Population of Asia and the Pacific 1960–2000 (millions)

	1960	1970	1980	1990	2000
Total population	1 638	2 060	2 526	2 992	3 435
0–14 years old	645	826	944	987	985
Adults (15 years and over)	993	1 234	1 582	2 005	2 450
Primary-school-age children	254	308	350	365	362

Source: UNESCO/PROAP, 1989, p. 2.

is permanently on the policy agenda of many governments in the region. In terms of education, the task of planning education to match population growth (or fluctuation) is understandably a difficult one.

However, different countries show different trends. The population growth-rate remains high in South Asia (2.3 per cent in 1980–85). In South-East Asia, it declines slowly (2.1 per cent, 1980–85). The growth-rate for the NIEs also shows a decline (1.6 per cent, 1980–85). In East Asia, with the exception of China, a negative growth-rate is likely to emerge (UNESCO/PROAP, 1989*a*, p. 2). Hence, the pressure of population growth is greater on less-developed countries who are least equipped to tackle populations problems.

The overall school-age population (0–14) peaks in 1990. This seems to hint that there will be some relief in the 1990s in terms of education expansion and investment. However, according to United Nations projections, over 40 per cent of the population of Afghanistan, Bangladesh, Islamic Republic of Iran, Nepal, Lao People's Democratic Republic, Pakistan and Papua New Guinea will be under 14 in the 1990s. During the same period, about one-third of the population of Bhutan, Fiji, Indonesia, India, Malaysia, Myanmar, the Philippines, Thailand and Viet Nam will be under 14 years. There is a foreseeable crisis in educational development due the disproportionate growth of the school-age population. This is not the case in the developed countries, such as Japan, Australia and New Zealand, where only 20 per cent of the population will be under 14 in the 1990s (UNESCO/PROAP, 1989, p. 3).

EMPLOYMENT

In many of the developing countries in the region, education is meaningful only in the sense that it leads to urban employment. In China and South Asia, two-thirds or more of the labour force is employed in agriculture. This has a significantly negative effect on educational development where education is still seen as irrelevant to rural life. In South-East Asia, half the labour force is agricultural; in East Asia, the agricultural component has dropped to much less than a half (Asian Development Bank, 1988, p. 81; see also Table 2). In this context, the conditions for educational development are more favourable in East and South-East Asia.

Another element that affects educational development is urban unemployment. Japan and the region's NIEs have enjoyed full or nearly full employment for the past two decades. There is even some degree of labour shortage in some countries, though there are new signs of unemployment among graduates in the Republic of Korea (Kim and Ihm, 1988). Among the South-East Asian countries, Thailand has the best prospects for full employment, though Malaysia came near to full employment in 1984 (Asian Development Bank, 1989, p. 156). All the other countries seem to suffer from unemployment in one way or another, for very different causes. In Australia and New Zealand, the causes of unemployment are very similar to those in Western Europe where modern technology has reduced domestic job opportunities in favour of countries with more adaptable work-forces. In the developing countries, unemployment is attributable to the usual causes in the Third World: insufficient jobs in the modern sector, economic austerity, over-production of graduates and trained workers, and so forth. In China, the new economic policies have created free job opportunities that were inconceivable in a planned economy, but they have led to the emergence of

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TABLE 2. Composition of labour force (1965 and latest figure available)

Country[1]	Percentage of labour force in					
	Agriculture		Industry		Services	
	1965	1980	1965	1980	1965	1980
China	–	69	–	19	–	12
India	73	70	12	13	15	17
Japan	26	11	32	34	42	55
Australia	10	7	38	31	52	61
New Zealand	13	11	36	33	51	56
Hong Kong	6	2	53	51	41	47
Singapore	5	2	27	38	68	61
Korea (Rep. of)	56	36	14	27	30	37
Malaysia	59	42	13	19	28	39
Turkey	75	58	11	17	14	25
Thailand	82	70	5	10	13	20
Philippines	58	52	16	16	26	33
Indonesia	71	57	9	13	20	30
Sri Lanka	56	53	14	14	30	33
Pakistan	60	55	18	16	22	30
Lao People's Dem. Rep.	81	76	5	7	14	17
Nepal	94	93	2	1	4	6
Bangladesh	84	75	5	6	11	19
Bhutan	95	92	2	3	3	5
Afghanistan	69	–	11	–	20	–
Burma	64	53	13	19	23	28
Dem. Kampuchea	80	–	4	–	16	–
Viet Nam	79	68	6	12	15	21
Korea (Dem. Rep. of)	57	43	23	30	20	27
Mongolia	55	40	20	21	25	39
Cook Islands	–	29	–	7	–	24
Fiji	–	44[2]	–	8[2]	–	19[2]
Papua New Guinea	87	76	6	10	7	14
Solomon Islands	–	30	–	10	–	37
Tonga	–	44	–	2	–	19
Vanuatu	–	77	–	2	–	–
Western Samoa	–	11	–	8	–	17

1. Data for other countries in the region not available.
2. 1976 figures.

Source: World Bank, 1986, pp. 238–9; Asian Development Bank, 1988, p. 81.

unemployment which was otherwise invisible. Different employment situations have led to different aspirations for education in these societies, and that in turn has considerably influenced the development of education.

In recent years, the employment situation has been complicated by the international migration of workers: Filipino workers in South-East Asia and the Middle East, Malaysian workers in Singapore and Indonesian workers in Malaysia, and so forth. Migration of workers also occurs in large countries such as China, where there are movements of unskilled labour from less developed to more developed provinces. In all these cases, migrant workers are replacing local low-income groups as sources of cheap labour. In the more developed countries and urban areas, the emergence of migrant workers is an indirect consequence of educational development where higher school participation has led to a shortage

TABLE 3. Education expenditure by country

Country	Percentage of GNP		Percentage of total public expenditure	
	1975	1986	1975	1986
China	1.8	2.7[2]	4.2	8.1[2]
India	2.8	3.6[2]	8.6	9.4[2]
Japan	5.5	5.1[2]	22.4	17.9[2]
Australia	6.0	5.6[2]	14.8	12.8[2]
New Zealand	5.8	5.3	17.1	20.9
Hong Kong	2.7	2.8[2]	20.7	18.7[2]
Singapore	2.9	4.3[2]	8.6	9.6[2]
Korea (Rep. of)	2.2	4.5	13.9	27.3
Maylaysia	6.0	7.8	19.3	16.3[2]
Turkey	2.8[1]	2.1	10.6[1]	–
Thailand	3.6	3.9[2]	21.0	21.1[2]
Philippines	1.9	1.7	11.4	7.0[2]
Indonesia	2.7	2.0[2]	13.1	9.3[2]
Sri Lanka	2.8	3.5	10.1	9.4
Pakistan	2.2	2.1[2]	5.2	5.0[2]
Maldives	0.6[1]	–	3.1[1]	–
Lao People's Dem. Rep	–	1.0[2]	–	6.6
Nepal	1.5	3.0[2]	11.5	10.8
Bangladesh	1.1	2.1	13.6	10.5
Afghanistan	1.3[1]	–	–	6.4[2]
Burma	1.7	–	15.3	–
Solomon Islands	–	5.2[2]	14.7	12.4[2]
Kiribati	4.9	–	–	17.5
Western Samoa	–	–	8.5[1]	–
Fiji	4.7	6.7[2]	19.5	–
Brunei	2.0	2.0[2]	12.2	9.6[2]
American Samoa	14.2	8.2[2]	–	16.0
French Polynesia	8.3	9.7[2]	–	–
Guam	13.3	8.5[2]	–	–
New Caledonia	–	13.4[2]	–	–
Cook Islands	–	–	–	10.2[2]
Tonga	3.0	4.4[2]	12.7	16.1[2]
Papua New Guinea	7.7	–	14.2	–
Niue	–	–	18.6	10.9[2]
Norfolk Island	–	–	13.7	14.0[2]
Pacific Islands	27.0	19.0	–	–
Cyprus	4.5	3.7	14.3	11.7

1. Mid 1970s but not 1975.
2. Mid 1980s but not 1986.
Source: UNESCO, *Statistical Yearbook*, 1988, Table 4.1.

of unskilled labour as well as higher wage expectations among local workers.

Nevertheless, the educational composition of the labour force in developing countries in the region is high compared with the rest of the developing world (Psacharopoulos and Arriagada, 1986). This is perhaps attributable to the cultural traditions mentioned above.

Developments in education

General economic progress has far-reaching consequences on the development of education. On the one hand, better economic conditions and changes in economic patterns have given

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rise to new demands for education. This is true both for manpower requirements and for social demand. On the other hand, governments have found themselves in a better financial position to entertain demands for educational expansion. Such wide-sweeping remarks may not apply to each and every country in the region; they nevertheless represent the situation in many countries of the region. We shall look at three aspects of educational development in the region: education expenditure, literacy and enrolment.

EDUCATION EXPENDITURE

Table 3 shows expenditure on public education by countries in the region. The industrialized countries, Australia and New Zealand and Japan spend 5–7 per cent of their GNP on education. Their pattern of expenditure is very similar to other developed countries and has been stable for many years. In the NIEs, with the exception of Hong Kong, education expenditure has increased from less than 3 to above 4.5 per cent of their GNPs. This increase occurred at the same time as these countries were moving out of the developing category. The developing countries maintain a level of 2–3 per cent, which again corresponds to other developing countries of comparable economic status. The extraordinarily low figure for the Philippines indicates the high proportion of private education rather than low investment.

There is in general a wide gap between the enormous needs for educational advancement and the resources available to undertake it (UNESCO/PROAP, 1989*a*, p. 5). This has rendered the developing countries in the region major clients of international funding agencies. In recent years, the attention of such agencies has shifted to basic education. In particular, the Asian Development Bank has recently established its education sector, which pays special attention to primary and non-formal education as a means of alleviating poverty.

LITERACY

The literacy rate in the region had reached 70 per cent by 1990 (See Table 4). This compares favourably with other regions, bearing in mind that most countries in the region belong to the developing world. There are three points worth mentioning (UNESCO/PROAP, 1989, p. 9; Chu, 1988):

First, much effort has been spent in eradicating adult illiteracy. When viewed across the years, the achievement is remarkable.

Second, despite the improvement in relative terms, the absolute number of adult illiterates remains almost constant. It is estimated that there will be around 600 million adult illiterates in the region in the 1990s.

Third, there is significant gender disparity. In the years 1970 to 1985, the female adult illiterates in the region constituted over 65 per cent of total adult illiterates.

TABLE 4. Literacy in Asia and the Pacific

Year	Literacy rate (%)	Adult literates (millions)	Adult illiterates (millions)
1960	39.6	393	600
1970	50.2	781[1]	614
1980	60.4	953	628
1990	68.7	1 377	628
2000	77.1	1 888	562

1. Chu, 1988.
Source: UNESCO/PROAP, 1989*a*, p. 6.

Moreover, there is considerable disparity between countries. The South Asian countries (with the exception of Sri Lanka) have rather low literacy rates. Most of the countries with a Confucian culture (with the exception of China, which displays enormous disparity within the country) have achieved a literacy rate of 90 per cent, regardless of their economic strength. Most of the countries in East and South-East Asia should approach full literacy during the 1990s. Australia and New Zealand, formerly regarded as having attained full literacy, are facing relapse into functional illiteracy, as is the case in other industrialized countries (UNESCO/PROAP, 1989, p. 9; Chu, 1988).

Where literacy rates are low, it is usually because of the rapid population growth. This runs counter the tremendous national efforts to eradicate illiteracy.

ENROLMENT

Table 5 indicates the growth of gross enrolment rates at different levels of the education system, in comparison with other parts of the world. The growth of enrolment exceeded the increase in population. This indicates the considerable effort these countries have made to expand their education systems.

In the majority of countries in the region, the main thrust of educational development is still basic education. In this region, basic education in general means primary schooling. UNESCO/PROAP (1989*a*, p. 14) estimates that, in 1990, the overall enrolment in primary education was 86 per cent. The high overall figure is very much attributable to the high enrolment in the two population giants China (94 per cent) and India (92 per cent), which offsets the low figures in other developing countries. However, enrolments in South-East Asia and the NIEs are generally high. When the figure is compared with 56 per cent in 1960 and 81 per cent in 1980, it should be seen as a real achievement among the nations in their efforts to universalize basic education.

However, high enrolment rates do not relieve these countries from pressures to achieve universal basic education. Non-attenders and drop-outs, despite being small percentagewise, remain large in number. As was estimated by UNESCO/PROAP (1989*a*, p. 13), the non-attendance rate amounted to 54 million in 1989 and is estimated to be 26 million by the end of the century. The non-attenders and drop-outs are found mostly in deprived areas where the social and economic environment does not allow for easy solutions to the problem. The enrolment rate is likely to level out in the years to come.

In general, there have been encouraging improvements in the drop-out situation in industrialized countries and the NIEs since 1960, but it is worsening in the less developed countries (UNESCO/PROAP, 1989*a*, p. 23). The reasons for dropping out are manifold. Apart from educational reasons such as low achievement in learning and unattractive curricula, economic incentive remains the major reason. China presents the typical case where the drop-out rate is severe in both the least developed areas where formal education is seen as irrelevant to rural life, and in prosperous villages where formal schooling incurs high costs when and where young people can otherwise take part in commercial or industrial activities.

Gender inequality also contributes to non-attendance and dropping out. In many traditional societies in the region, the major role of girls is still seen as housework. Even where finance per-

TABLE 5. Gross enrolment rates, 1960 and mid-1980s (percentages)

	Primary		Secondary		Tertiary	
	1960	1986	1960	1986	1960	1986
World	80.7	99.9	27.5	47.0	5.2	12.8
Developed countries	101.5	103.0	62.1	90.2	13.3	33.1
Developing countries	72.8	99.2	15.1	38.5	2.0	7.2
Asia (excl. Arab States)	80.8	104.4	20.7	40.2	2.5	7.1
Oceania	101.6	106.8	53.1	79.2	9.9	25.1

Source: UNESCO, *Statistical Yearbook*, 1988, Table 2.10.

mits, boys are given priority in schooling (UNESCO/PROAP, 1989*a*, p. 15).

Most countries have also made considerable efforts to expand secondary education. Apparently, enrolments in secondary school reflect the economic strength of these countries, with practically few exceptions.

Technical and vocational education was once seen as a viable alternative to traditional schooling in the region. Statistics show that two parts of this region show very different directions of development. In Oceania, the percentages of the appropriate age-group enrolled in technical and vocational secondary education were 0.7, 1.3 and 1.5 per cent in 1970, 1980 and 1986 respectively (UNESCO *Statistical Yearbook*, 1988, Table 2.9). The enrolment rate is small yet steadily increasing. This corresponds to trends in other developing countries where new training programmes were launched to cope with youth unemployment. In Asia, the corresponding figures were 8.0, 7.4 and 6.7 per cent in 1970, 1980 and 1986 respectively. There is a steady decline which again corresponds to trends in other developing countries. Such a decline is not totally unexpected in countries where favourable labour and employment conditions are lacking.

It is noteworthy that in the region, apart from industrialized countries, some of the less developed countries also operate a highly developed system of higher education. The Philippines and Thailand are outstanding in their higher education enrolments when compared with countries of comparable economic strength. India and China both possess a comprehensive network of universities, though the latter has a low enrolment rate.

Another characteristic of the region is that the NIEs and advanced South-East Asian countries, with the exception of the Republic of Korea, rely heavily on overseas facilities. Hong Kong, Singapore and Malaysia are the top contributors of overseas students in the popular host countries.

Much effort is also spent in developing non-formal education in the region. Apart from literacy programmes and spare-time training of professionals, there are also new ventures in setting up non-formal higher-education institutes. There are now two open universities in Thailand, one each in India, Pakistan, Indonesia, Sri Lanka and Hong Kong, and a self-contained elaborate system in China. Such non-formal institutions have changed the access to higher education, presented new challenges to curriculum design and teaching strategies, and has changed the employment situation by way of qualification and certification. However, most of the institutions are still too recently established to exhibit any impact.

Trends in educational planning and management

Again, any attempt to draw simple diagrams for the entire region is bound to suffer from overgeneralization. A few points of commonality are identifiable, however.

COMPREHENSIVE REFORMS

There has been a tide of major education reforms in the region over the past decade. Some of these reforms are comprehensive in nature and affect the entire national systems. Such comprehensive reforms are non-incremental in nature and often emerge as a total 'rethink' of the education system.

The comprehensive reform in China (1985) was a direct consequence and indeed a part of the entire reform of the country's economic and political system. Its aims are the institution of compulsory nine-year education, an expansion of the technical/vocational component in secondary education and a delegation of autonomy to universities.

The reform in India (1986) was an attempt to restructure the education system to achieve better human-resources development. Its aims are the institution of eight-year universal education and the establishment of a national unified system for schools and curricula.

Japan (1987) and the Republic of Korea (1985) launched similar comprehensive reforms but which are different in nature. The Japanese reform can be seen as an attempt to revolutionalize the concept of education, to place more emphasis on individualism, creativity and internationalization. The Korean reform is seen as an attempt to increase the efficiency of the education system which will in turn improve manpower training.

It is noteworthy that all these reforms grew out of the respective nations' specific needs, rather than fashionable 'modern' trends. Other countries launched reforms that were less comprehensive in nature but nevertheless carried the same notion of a rethink of the education system.

All the comprehensive reforms, without exception, included in their schemes substantial changes in the funding and management of education. Reforms in other countries, in one way or another, also imply changes in the funding and management of education. These countries include Bangladesh, Indonesia, Lao People's Democratic Republic, Thailand and Viet Nam (UNESCO/PROAP, 1989*b*, p. 40). Although these reforms work in very different contexts, the following themes, which are comparatively new to the region, are strikingly similar.

DECENTRALIZATION

To many countries of the region, decentralization is a very unconventional concept. Decentralization is seen in the reforms at two levels.

First, at the local level, there is a tendency to grant more autonomy to educational institutions. The reason for this is best expressed by the Minister of Education of Singapore: 'The prospect of greater quality in education rests at the level of the school' (Singapore, 1987, p. 3). In practice, this kind of decentralization is viewed through the vague notion of 'privatization' to which we shall return.

Second, at the national level, there is the general tendency to delegate decisions and finance to lower levels of government. In China, reform has resulted in local finance, management and planning of basic education by way of a local education levy and local administration of schools (China, 1985). In India, decisions are delegated to district councils which take care of clusters of rural schools (de Rebello, 1989). In Indonesia, recent reform placed emphasis on the training of teachers and school heads to become autonomous professionals in the management of grassroot schools (UNESCO/ PROAP, 1989*a*, p. 40). In the Japanese reform, there is a major theme of 'deregulation' of the school system, where local governments are urged to make independent decisions according to the actual circumstances of the localities (Kitamura, 1989). In the reform in the Republic of Korea, there are recommendations to transform the local education boards into genuine decision-making bodies financed by a local education tax and an education bond (Republic of Korea, 1987).

Decentralization has the manifest advantages of creating a sense of local ownership of schools, mobilizing local resources, making schools more sensitive and adaptive to local needs, and reducing the adverse effects of bureaucracy. Such advantages are already observable in China and India where reforms have borne the first fruits.

However, decentralization has also rendered schools more vulnerable to local conditions. In China, for example, decentralization has led to regional disparities where schools in poor localities sometimes may operate at a mere subsistence level. In India, as another example, local political interference in schools has become more evident.

PRIVATIZATION

Parallel to decentralization is the transfer of finance and management of schools to private agencies. In both Japan and the Republic of Korea, private schools are specified in the reforms as constructive partners in a 'deregulated' national system. In Pakistan, a policy is under review to revert the trend of nationalizing privately run educational institutions (Pakistan, 1989). In the Philippines, where there is a traditionally strong private sector at all levels of the education system, recent policies opt to reinforce the private schools further by deregulating tuition fees and introducing an incentive accreditation system (Miguel, 1989). In Australia, Singapore and Hong Kong, where government used to be the principal supplier of education services, recently there are dramatic schemes to make use of public funds to create a substantial private school system (Cheng, 1988).

Privatization is perhaps an inaccurate representation of all the policies mentioned above. Many of these schemes aim at giving parents more choice (e.g. Hong Kong). Others are designed for better-quality schools (e.g. Singapore). Still others are designed for diversity and flexibility (e.g. Japan) or for a reduction of government support (e.g. Pakistan). Only few are privatizing in the proper sense of applying market mechanisms to schools (e.g. Philippines). However, there is an unmistakable tendency to move away from a uniform public system and to allow independently run schools.

DECONCENTRATION

Deconcentration refers to the diffusion of school management to more hands. Deconcentration inevitably leads to more diffused sources of finance. Involvement of employers in the planning and management of education has been one of the major means of deconcentration. In the Chinese reform, employers share the finance, and sometimes the design and management, of joint venture training programmes at secondary level, and in commissioned training at tertiary level. In Hong Kong and Singapore, employers have virtual control of training plans and facilities through their participation in relevant policy committees.

In a review document, UNESCO/PROAP (1988*a*, p. 100) has identified the following as one of the categories commonly occurring in national policies: 'Involving industry and the private sector in the planning of technical and vocational education, teaching and course development (found in policy articles of Bangladesh, Indonesia, Republic of Korea, the Philippines and Thailand)'.

Deconcentration has enabled schools and universities to free themselves from total dependence on government finance, and make themselves more responsive to manpower needs in the economy. However, the responsiveness to manpower requirements may also result in a narrow vision of educational goals and may neglect areas that are not immediately manpower oriented. The participation of non-education sectors in educational finance may also render education vulnerable to fluctuations in the economy. All these pros and cons have been witnessed by countries that have experienced deconcentration.

CO-ORDINATION

New partnership in the financing and management of education inevitably involves new actors in decision-making. Decentralization, privatization and deconcentration may all play down the role of central government and its education departments, but they have meanwhile introduced new participants into the policy arena: local governments, local communities, independent (or even commercialized) school sponsors, employers, and so forth. This has led to the necessity of new concepts and mechanisms of co-ordination. In fact, co-ordination is another main characteristic of recent changes in the region.

In many countries or territories in the region, new types of co-ordination materialize in the form of cross-sectoral or cross-departmental policy-making organs. In both Japan and the Republic of Korea, the educational reforms are deliberatiod by high-power committees directly answerable to the President (as in the case of the Republic of Korea) or the Prime Minister (as in the case of Japan). Such committees have the advantage of going beyond the traditional education authorities and breaking down conventional interministerial barriers. In both the Lao People's Democratic Republic and the Maldives, there are a newly established national council and a committee, respectively, to secure intersectoral co-operation. In Hong Kong, an Education Commission has recently been set up to co-ordinate general, vocational and higher education and to involve non-education departments. In Singapore, a Schools' Council has been established with representatives from all relevant departments and head teachers from all levels of the school system. In China, the reform has led to the creation of a State Education Commission where all relevant ministries are represented. In India, a Ministry of Human Resources was set up to replace the Ministry of Education, to ensure that education decision-making was not confined to traditional formal schooling.

There is a second sense of co-ordination, which refers to the co-operation of different sectors or departments to achieve certain educational goals. A typical example is the APPEAL programme (a UNESCO regional programme) which requires the integration of UPE (universalization of primary education), EOI (eradication of illiteracy) and CED (continuing education for development). There is a similar pattern of integration in China where the trend is to integrate formal schooling, vocational training and adult education (known as 'trinity education') to improve the educational attainment of the community.

SOME OTHER OBSERVATIONS

Apart from the commonalities discussed above, a number of observations may also prove meaningful to the international scene.

Changing goals of planning

Broadly speaking, there are three identifiable categories of goals for educational planning in the region. First, in the industrialized countries Japan, Australia and New Zealand, apparently social demand is the primary goal of educational development, and the national resources are able to support such an approach. At the stage where quantity goals are largely achieved, countries begin to contemplate improvement of quality in education (McKinnon, 1986; Renwick, 1986). Second, the NIEs seem to put more emphasis on the supply of manpower in their planning exercises. This is very much the case in Hong Kong, the Republic of Korea and Singapore, though each of them has indicated signs of a re-orientation towards quality issues in their recent plans. China is also in this category. It emphasizes manpower requirements in the planning of higher education, but 'quality of the population' in basic education. Third, it is noticeable that in the reform programmes of many developing countries in the region, human-resources development goals have replaced specific goals of economic growth. This may indicate that governments have now adopted a long-term perspective of national development and a broader view of education.

There could have been a fourth goal for planning: planning for austerity. This is visible elsewhere with a shrinking education budget, but is seldom an issue in this region. In general, education in this region still receives high priority in government budgets. In other words, educational planning in the region is mainly forward-looking and strategic in nature. This is explicable by the traditional emphasis on human resources as was mentioned at the beginning of this article.

CAPACITY FOR TRAINING AND RESEARCH

A recent development in the region is the establishment of a national capacity for training and research in educational planning, administration and management. This is very much prompted by the above-mentioned tendencies of decentralization and deconcentration. With the administration of education moving away from a few hands in central government, there is a new demand for personnel who can independently take care of decision-making, planning and supervision in a local environment. Training and research in these areas naturally come onto the policy agenda.

Such a capacity in training and research had long been underdeveloped in this region, very much because of the over-enthusiastic involvement of foreign institutions, and lack of local enthusiasm to invest in such development. The scene has considerably changed in the past decade.

The most typical example was the National Institute for Educational Planning and Administration (NIEPA) in India. Besides training administrators and planners at national and subnational levels, NIEPA also participates actively as a technical base for national policy-making. Recently, NIEPA has also developed itself into a regional centre, training administrators and planners for the sub-continent, and sometimes for African countries.

Similar to NIEPA are the National Institute for Education in Sri Lanka and, to a lesser extent, the Academy for Educational Planning and Management in Pakistan. The National Institute for Educational Research in Japan and the Korean Educational Development Institute in the Republic of Korea have also developed within themselves strong components in administration and policy studies, though training is not part of their remit. In China, institutes such as the Institute for Higher Education at Beijing University and the Institute for Manpower Development in Shanghai have recently played important roles in both national and international policy research, and have both moved beyond the areas warranted by their names.

Apart from institutional efforts, the last decade has also seen the emergence of various non-governmental organizations active in the realm of educational planning and administration. One of the largest network of such organizations has been the Commonwealth Council for Educational Administration which has its headquarters in Australia and has very active chapters in, for example, Australia itself, Hong Kong, India, New Zealand and Singapore. All these organizations are closely engaged in training and research activities.

Education is culture specific. Given stable political conditions (which unfortunately are not always available in the region), recent developments will hopefully give birth to models appropriate to the cultures of Asia and the Pacific in the realm of educational planning and administration.

Centralization of higher education

There are largely two models of higher education administration in the region. In the first, higher education is controlled by a ministry or government department which dictates the finance and management of higher-education institutions. In the second model, higher-education policies are made by a university grants committee (UGC), or its equivalent, following the British model. It is the second model that is at stake.

Structurally, the second model is a mechanism to guarantee accountability of public funding, on the one hand, and to protect academic autonomy, on the other. This model exists mainly in member countries of the British Commonwealth: Australia, Hong Kong, India, New Zealand, Sri Lanka, etc. Typically, a UGC comprises representatives from the universities and other members appointed by the government. In some UGCs (e.g. Hong Kong), there are even overseas members to reinforce the impartial 'third-party' status of the UGC. In recent years, following the elimination of UGC in the United Kingdom, a number of countries in the region have also undergone some restructuring which in effect has also eliminated their respective UGCs. Australia and New Zealand were the first in this category. It is not clear how many other countries will follow suit.

Apparently, the elimination of UGCs was a move to increase accountability at the expense of institutional autonomy. Proponents of the move argue that the UGC model has led to too much autonomy resulting in an abuse of public funds. The move therefore carries the undertone that education should subject itself to managerial controls similar to those of the business sector. The move is prompted by the notion of 'value for money' which is ever attractive to governments. However, it is quite opposite to the tendencies of decentralization and deconcentration in basic education and vocational education as discussed above.

Technico-political interactions in policy-making

Politics remain a sensitive issue in many developing countries and even NIEs in the region. This has led to an over-emphasis on technical deliberations and lack of attention to political dimensions in educational planning and policy-making. The latter, however, is widely observed and examined in other parts of the international community.

On the one hand, there is no lack of enthusiasm in the introduction of modern technology into educational planning, administration and management. The adoption of management information system in the education sector is widespread in both Asian and Pacific countries, sometimes at a rate disproportionate to the economic growth of the countries. The strong mathematical traditions in Chinese and Indian cultures, which are by no means confined to their homelands, have reinforced this trend. Computerphobia, for example, is simply non-existent in the region.

On the other hand, the decentralization of planning and administration is not always matched by the necessary political conditions to support such decentralization. As a typical example, decentralization inevitably involves wider participation, but the mechanism of popular participation is seldom taken into consideration in the design of reforms. On the contrary, many who are genuinely concerned about education adopt an apolitical attitude as a safeguard against non-professional interference. It seems safe to predict that with further restructuring of the administration and policy-making systems, the political dimension will attract the attention of both policy-makers and policy analysts.

CULTURAL DIFFERENCES

Recent developments in the region should attract new attention to cultural studies. The notion of 'Japan as number one' summarizes the underlying hypothesis that there is a cultural element which explains the economic success of Japan and the NIEs. There are therefore studies primarily in management science and lately in education (Lynn, 1988; White, 1987) which attempt to uncover this cultural element. However, the recent reform in Japan's education system involves a complete overhaul of the basic philosophy of education. There is an unmistakable intention to move away from collectivism towards an emphasis on individuality, from conformity to creativity. To a lesser extent, the reform in the Republic of Korea follows the same route.

The shift in philosophy in Japan is prompted by the argument that given the international challenge of hi-tech competition ahead, there is a demand for inventive and creative minds. There is of course still a deep-rooted oriental pragmatism which is very different from the Western philosophies based on the value of the individual. Nevertheless, if the Japanese reform proves acceptable to the nation and is successful, then the impact on educational thought in the region will be tremendous.

This article has attempted to present a sketchy but valid picture of the development, planning and management of education in Asia and the Pacific. It is not the result of a comprehensive survey of the entire region. In particular, much less is mentioned about the Pacific than Asia. In a vast region with marked diversity, there are amazing points of commonality. In particular, there is the unmistakable move to a more flexible and more decentralized system. Such points of commonality will hopefully provide some food of thought not only to the region, but also to the international community at large.

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Educational planning and management in Europe

Trends and challenges

Ingemar Fägerlind and Britt Sjöstedt

In the early 1990s, the European region is involved in a revitalization process. Within the European Community cross-fertilization programmes in research and education have already yielded results, and more co-operation, not only across frontiers, but also across institutions and academic disciplines are planned. In Eastern Europe, pronounced redefinitions of traditional policies and values are not only changing the political structure, but also forcing profound changes on education systems. Institutions of higher education and research actively look for co-operation with institutions in Western Europe while governmental programmes are worked out to improve the quality of education, change and modernize the curricula and promote creative thinking.

New developments in information technology, including computer-aided learning, video (in particular, interactive video) and television, all offer important opportunities to improve the quality of learning. The new technologies pose enduring challenges for educational planning, and curriculum planners have to address the question of what understanding and habits of mind are essential for all citizens in a scientifically literate society.

New modes of organization of work are rapidly spreading, which demand more independence and self-motivation from workers. In such a situation, it seems doubtful whether curricular reform by itself will help to improve the output of schools without a fundamental change in the social environment in which learning takes place. Educational institutions may need to rethink the way in which they are structured. The new information technologies may force educational planners to consider alternative organizational models for education.

Due to falling birth-rates, young people will

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be a scarce commodity in the 1990s in most European countries. With this prospect, schools and training systems have to bring up the qualification level of a greater proportion of an age-group, in order to help production retain its competitive capacity. One solution is to raise the school-leaving age, another might be to bring the worlds of schooling and work closer together. Lifelong education will undoubtedly play a more important role in the future in all European countries. Continuing education, as well as higher education, will in many cases take place in more specialized learning environments.

Major economic and political developments

A decisive tendency within the Western European economies over the last decade has been the growth of cross-national co-operation. It has been seen as a viable strategy to meet tightening international competition not only in the economic field, but also in the fields of technology and science. An integrated market, as opposed to fragmented ones, is seen to have vastly better chances of making efforts and innovations commercially more profitable in an expanded market. This orientation has necessitated various degrees of economic adjustment and structural reform within the countries. In the case of the European Community, trade liberalization policies, removal of subsidies to domestic producers, and a degree of monetary co-operation have been discussed and developed (Laurent, 1987).

In Eastern Europe, the intensity and direction of the economic reforms vary between countries, but common to most Eastern European countries has been an orientation towards economic co-operation with other countries, as well as efforts to establish co-operation with the large international financial institutions, such as the World Bank and the International Monetary Fund (IMF). One sign of this new thinking is the frequent mention of a 'European home', a concept that reflects the increasing attention given to Europe by the USSR, referring to the common cultural heritage. There has, for example, been a growing interest in participating in the activities of the Council of Europe, which may be seen as an expression of a hope for an alternative to a purely Western European co-operative body, particularly as materialized in the Common Market.

The overall shift of weight of the economy from the industrial to the service sector in the past decades is continuing in the 1990s. This calls for an overall high level of education and specialization among workers, as there is an increasing need for them to be capable of problem-solving, working in teams, assuming greater responsibility for product quality and the production process, as well as communicating via computerized information. A 'new set of competences' is required (Levin and Rumberger, 1989), which will have implications not only for what knowledge and competence are actually taught in school, but also for the way they are taught. There will be, as Levin and Rumberger (1989) point out, a need to move away from rote-memorization, the correct-answer approach, and school- and teacher-directed activity.

As a way of meeting increasing international competition, various co-operation projects have been initiated. The EUREKA (European Research Co-ordination Agency) project is one such large-scale co-operative venture within Western Europe, which has been designed to meet increasing competition in the area of science, technology and informatics, where progress is extremely rapid. Projects of this kind will have a range of implications: they will, for example, be likely to affect the scientific and technological dependence on others, to some degree enable Europe to prevent its brain-power from being siphoned off, and facilitate the co-ordination of efforts, so that duplication will be avoided. ESPRIT (European Strategic Programme of Research in Information Technology) is intended to group universities, research institutes and computer companies together primarily for research and development, as well as for applications for marketing, since the economic viability of these projects has become of increasing importance.

In the field of education, ERASMUS (European Community Action Scheme for Mobility of University Students) is intended as an encouragement for universities in the various member states to co-operate with universities in other countries through programmes for faculty and student mobility. Priority is also given to curricula and intensive programmes, as well as mutual adaptation of existing curricula. The programme has the aim of eventually providing 10 per cent of all post-secondary students in Europe with the opportunity to study in another country within in the Community. ERASMUS will have a considerable impact on the general direction of 'Europeanization' and internationalization at different levels of society. As regards higher education, the development of common degrees and diplomas will facilitate the process of integration, and thus have substantial structural implications, though there is a long way ahead until a complete integration could be realized.

The LINGUA Programme, reflects the concern of the European Community for language learning. In a 1983 EEC declaration the importance of refreshing the knowledge of languages is stressed, and the provision of in-service training abroad for language teachers is claimed as a priority. In response to the increasing need for language learning, several European countries have introduced foreign-language learning at an early age in compulsory education. The increasing mobility within the continent makes the mastery of a second language a necessity. However, in a recent survey, a majority of the citizens of the European Community reported that their knowledge of a foreign language was not sufficient to be able to carry on a conversation in that language (Weiss et al., 1989). Through the increasing interchange in the field of education and in working life, multicultural and multilingual dimensions will be increasingly prominent features in both education and the world of work.

In order to make education and training more responsive to changes within the field of technology, COMETT (Community Action Programme for Education and Training for Technology) has been created. COMETT directs co-operation between universities and private companies, as well as the joint formation of training courses. It is aimed at improving training at national, regional and local levels, so that those countries within the European Community in which the provision of training opportunities is still scarce could reach a better balance with other countries.

Social and cultural developments

The social and cultural developments in Europe in recent years are closely linked to the overall economic development and the political climate. Most European countries belong to the rich developed countries of the world, and could be characterized as welfare societies that adhere to ideals of equity and equality. In the process of European integration and a concomitant internationalization of markets and trade, efficiency and profitability have gained importance, however, and many countries find themselves in a dilemma of, on the one hand, political objectives of equal distribution of welfare, and equitable wages and, on the other, the need to give impetus for enhanced productivity by means of various economic incentives. Conflicts which have considerable social implications have thus emerged, and need to be resolved.

An important development is the overall rise in the level of women's work-force participation, while the male participation level has remained constant or even fallen. In some countries, the rise in female work-force participation is largely accounted for by the increasing number of women in part-time employment. This is, for example, the case in the United Kingdom and Denmark, where both levels of actual participation, and levels of part-time employment are high. In 1985, 44 per cent of women held part-time jobs in Denmark, and 45 per cent in the United Kingdom, according to European Community labour force surveys. Thus, the gap between women's and men's work-force participation is gradually closing (United Kingdom, 1989).

In projections for the year 2000, the increase in female participation in the labour market is even more pronounced. In the United Kingdom the increase in the total work-force up to the end of the century is almost entirely accounted for by women, who will make up 44 per cent of the work-force, according to estimates made by the British Department of Employment. In the Eastern European countries, the rates of female participation remain high in all sectors of the economy, with a marked increase in the service sector over the last two decades. In 1980, the overall female employment rate was 48 per cent, which was considerably higher than the average rates for the industrialized market economies (Fagerlind and Saha, 1989).

Growing female participation in the labour market has created new demands on the education and supervision of schoolchildren, and the role of men in the family has changed. A diversification of family patterns, a growing proportion of single-parent families, and a decline in the number of marriages, have contributed to a plurality of life-styles that must likewise be taken into account by educational planners. The traditional nuclear family can no longer be safely taken to represent the norm; and this requires a response by the schools, so that this social plurality is recognized and more individualized teaching methods and learning objectives provided (Weiss et al., 1989).

An overall tendency is that of a growing sense of individualism, which not least concern aspirations for education. Individual demands for education have become more differentiated; there is greater awareness of equality in education, and more importance is generally assigned to education. Parents have higher educational aspirations for their children, while students today demand more say in the course contents, more freedom of choice, and show greater concern for quality (Weiss et al., 1989). The retained dominant position of traditional education *vis-à-vis* private alternatives will depend on how well it manages to meet the demands of parents and students.

In the context of mobility between countries as facilitated by exchange programmes between schools and work-places, by the recent opening up of frontiers together with the widening dissemination of mass media, there has been a rediscovery of a shared social and cultural history. A growing sense of being European has evolved, and the idea of a shared central Europe has, for example, regained expression, though these sentiments are very different from some of the nationalistic currents of earlier decades (Croan, 1989).

Migration and demographic trends

Major changes of the characteristics of migration in Europe have occurred in recent years. As the economic gap between northern and southern Europe diminishes, the labour-force migration of the 1960s and 1970s from southern Europe to the major receiving countries of central and northern Europe has slowed down considerably. The share of southern Europeans in the total inflow of immigrants to the traditional receiving countries was estimated at 39 per cent in 1970–74, 30 per cent in 1975–79 and 25 per cent in 1980–83 (Council of Europe, 1989).

TABLE 1. Annual average intake of registered immigrants (thousands)

Western Europe	USA	Canada	Australia	New Zealand
850	600	100	150	40

Source: Council of Europe, 1989

The proportion of asylum-seekers is increasing, and in 1985 the numbers of asylum-seekers exceeded that of workers admitted for example into France, Germany and Switzerland. The waves of asylum-seekers come primarily from Asia and Africa, with flows from Latin America diminishing, since several countries there have become more democratic.

As to the estimated annual inflow of immigrants in general, the average for Western Europe in the last years of the 1980s surpasses that of other traditional receiving countries.

The waves of refugees entering the continent have reinforced the co-operation between European countries. As more migration is expected to take place within the European Community, there will be a continuing need for co-operation in order to combat illegal immigration as well as to co-ordinate refugee policies.

The overall proportion of migrant children in the schools can thus be expected to continue to be high in the receiving countries of Europe, which makes a multi-cultural education fundamental. A number of countries have introduced mother-tongue education, but educational practices vary between countries. Confining 'multiculturalism' to a separate subject, added on to a full course of study has not, however, been successful. There is rather a need for an overall permeation of multiculturalism in education (Arora and Duncan, 1986), which ultimately depends for its success on the general political climate, and on measures that might affect the school organization as such (Weiss et al., 1989). The policies of multiculturalism in different countries are still in a state of flux; several ideological and social obstacles remain to be solved and it is difficult to predict the general direction of the development. The pressure will, however, increase on policy-makers to take appropriate action.

Two major demographic developments can be observed over recent decades, both of which are certain to have wide implications for education. To begin with, there is a relative decrease in the population of Europe. It is estimated that by the year 2000, the population of industrialized Europe will have fallen to 3 per cent of the total population of the world, compared with 6 per cent today. In an OECD study carried out in 1986, a prognosis was made for the growth of the working-age population in Europe, compared with other continents. This is shown in Table 2.

A parallel development is the continued ageing of the population. At present, there are only two European countries where more than 15 per cent of the population is older than 65 (Sweden and Germany), but by the year 2000, seven other European countries will experience the same situation. Only Turkey and Ireland will have less than one-tenth of the population over 65, according to demographic projections. The development corresponds to falling birth-rates of the late 1960s and 1970s, and it will have considerable implications for education as well as for the work-force. It has been correctly termed a 'demographic time-bomb' (United Kingdom, 1989).

This development will also challenge the education systems of Europe. In a situation of relative scarcity of young people, companies may need to recruit very young people and provide them with training opportunities within the company. The selection of capable students willing to stay in the company thus becomes vital for its commercial competitiveness, and companies are also likely to require a greater degree of influence in defining the content and organization of vocational courses in secondary schools.

For young school-leavers and graduates this situation means that competition for employment will not be as severe as when the age cohort is large. It will be possible to take up a working career at a relatively early age, and there will be less need for university or college education. Pri-

TABLE 2. Growth of working-age population by region 1960-90

Region	Annual growth rate (%)		Annual increase (thousands)	
	1960-70	1985-90	1960-70	1985-90
Western Europe	0.7	0.1	610	100
Southern Europe	0.7	0.6	520	580
North America	1.1	0.7	2 180	1 260
Less developed countries	2.9	2.7	29 000	60 000

Source: Council of Europe, 1989

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vate companies and organizations, on the other hand, will have to compete for the recruitment of young employees. With a decline in the absolute number of pupils and students, countries can no longer afford the same number of school failures as today (Neave, 1989). The quality of education will thus be a fundamental issue for educational planners.

Coombs (1985) remarks that the decline in the number of students could provide education with a chance to 'catch its breath and change its focus from quantitative expansion to qualitative improvement'. At the same time, the problem of planning education in the context of falling enrolment rates and declining birth rates has, for most countries, proved a problem. Even if the pupil-teacher ratios are lower in a context of smaller age cohorts, which may have positive effects on the quality of education, education systems do not adapt automatically.

In many European countries, further education and retraining may thus be the only educational sector experiencing a long-term expansion, in contrast to other sectors (Weiss et al., 1989). The decrease in the number of young people, and the expected concomitant declining demand for higher education within the traditional school system and the increasing need to update skills among those already employed, also entails that participants in further education will be older than today (Weishaupt et al., 1989).

Educational developments

COMPULSORY EDUCATION

In most European countries, the length of compulsory education is around nine years (see Table 3). However, nine years of compulsory schooling are not seen as long enough to prepare for adult and working life, particularly in a context of rapid technological development and changing requirements in the labour market. Enabling pupils to go on learning, and providing them with the skills and motivation for continuing learning has thus gained importance. A central body of knowledge, and basic cognitive skills have again come to be seen as essential to compulsory education, which is a change from the overall socialization perspective of the 1970s (Jallade, 1989). An additional range of optional subjects can be made available according to the preferences and abilities of the individual child.

There is a shift away from focusing only on enrolment figures, in favour of a pronounced emphasis on quality. In particular, there is a growing concern about low-achievers and dropouts, who leave school with no skills or qualifications relevant to the labour market. Policies of compensation for low-achievers have been adopted, a range of methods have been devised to combat the problem of school failure, and the general orientation is towards a greater degree of active support for disadvantaged children (Jallade, 1989).

The expected increasing challenge to traditional education from the private sector will, primarily affect the higher levels of education. Compulsory education is likely to retain its dominance in relation to alternative opportunities for learning. It will, however, have to accommodate its methods and quality to adjust to the changing context that has evolved in response to scientific and technological development. The demands for an overall knowledge of, for example, information processing, have resulted in the increasing use of computers in compulsory education. In view of the gap that threatens to emerge between those who master the new information technology and those who do not, the ability to comprehend and produce information by means of the computer, and the gradual acquisition of computer literacy will be important objectives of compulsory education.

SECONDARY EDUCATION

There is a general tendency towards comprehensive secondary education, where various elements are merged or made more interchangeable. Most European school systems have at least gradually adopted the principle of comprehensive secondary education. From the first grade,

TABLE 3. Length and age-limit of compulsory and secondary education in Europe

Country	Compulsory education		Primary education	Secondary education	
	Age limits	Duration (years)		First level	Second level
Albania	6-13	8	6-13	14-17	
Andorra					
French schools	6-16	10	6-10	11-14	15-17
Spanish schools	6-15	10	6-10	11-13	14-17
Austria	6-15	9	6-9	10-13	14-17
Belgium	6-18	12	6-11	11-14	15-18
Bulgaria	7-14	8	7-14	15-17	
Czechoslovakia	6-15	8	6-13	14-17	
Denmark	7-15	9	7-12	13-15	16-18
Finland	7-16	9	7-12	13-15	16-18
France	6-16	10	6-10	11-14	15-17
German Dem. Rep.	6-16	10	6-9	10-15	
Germany, Fed. Rep.	6-18	12	6-9	10-15	16-18
Gibraltar	4-15	12	4-11	12-15	16-17
Greece	6-15	9	6-11	12-15	16-17
Hungary	6-16	10	6-13	14-17	
Iceland	7-15	8	7-12	13-15	16-19
Ireland	6-15	9	6-11	12-14	15-16
Italy	6-13	8	6-10	11-13	14-18
Liechtenstein	6-14	8	6-10	11-13	14-16
Luxembourg	6-15	9	6-11	12-14	15-18
Malta	5-16	10	5-10	11-15	16-17
Monaco	6-16	10	6-10	11-14	15-17
Netherlands	5-16	11	5-11	12-14	15-17
Norway	7-15	9	7-12	13-15	16-18
Poland	7-14	8	7-14	15-18	
Portugal	6-14	6	6-11	12-14	15-17
Romania	6-16	10	6-13	14-17	
San Marino	6-13	8	6-10	11-13	14-18
Spain	6-15	10	6-10	11-13	14-17
Sweden	7-16	9	7-12	13-15	16-18
Switzerland	7-16	8-9	7-12	13-15	16-19
United Kingdom	5-16	11	5-10	11-13	14-17
USSR	7-17	10	7-11	12-14	15-16
Yugoslavia	7-15	8	7-10	11-14	15-18

Source: UNESCO, 1988.

children thus expect to pass through a sequence of school years, which they will go through without hindrance, at least to the end of compulsory schooling.

In some countries, attempts at generalizing comprehensive secondary schools have met with resistance, however. In France, opposition to comprehensive secondary schools was evident on the part of many teachers; this was later overcome by including teachers in the shaping of the comprehensive school model. In Austria, attempted reforms met with similar resistance, or lack of co-operation, among a majority of the teachers. The results of an experimental phase in the 1970s were essentially positive, but the political will to capitalize on that experience was lacking, and general comprehensive education was not realized in the 1980s. In Germany, attempts to make secondary schools comprehensive were likewise introduced on a limited scale and on a trial basis. The intention was to evaluate the performance of the experimental comprehensive schools over a period of time, to compare it with the existing conventional system, and then decide which type of school eventually to adopt (Weiler, 1989). The traditional three-tier structure was not replaced on a large scale with a comprehensive *Gesamtschule*, however, and where comprehensive schools exist today, they do not constitute a structural replacement for the traditional selective system.

An increasing number of European countries have provided for a continuation of education after compulsory schooling, which has partly been

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a response to the urgent need for retraining among the unemployed, and a response to the needs of those who for different reasons have been unable to complete secondary education, and who return to school after a period of work. Before there was provision for continual education, many students in Sweden, for example, left school once compulsory schooling was completed, at the age of 16.

VOCATIONAL EDUCATION

The growing emphasis on vocational education is also a response to a constrained economy, high unemployment rates and changing skill requirements. In all Western European countries, the objective is to provide all young people leaving compulsory education with a minimum of one year of vocational education and training, which is to be built upon further in on-the-job training. In the case of the Netherlands, the number of school leavers who gained a technical diploma increased by 80 per cent in the period 1975–85, and in France a *baccalauréate professional* has been introduced, which furnishes students with a complete professional course, on a par with general education. The form of vocational education and training generally reflects the tradition of the education system of the country. In a country like France, with a long tradition of public education, prolonged school based education tends to be the prevalent response and an extension of the length of secondary education has been introduced. The tendency in Western Europe to vocationalize upper-secondary-school levels goes against the tendency in the United States and Japan, where community colleges and private companies, respectively, are gradually gaining ground as the locus for vocational training.

Vocational education and training need to be flexible and adaptable in order to meet the changing demands for specialization and professionalism in the labour market, and a new set of qualities will increasingly have to be emphasized in technical and vocational education:

The 'transferability' of skills, which means that skills are not tied to one specific occupation, but possible to use in a broader range of occupations.

Communication skills will be required for the increasing extent of team work carried out at the work-place, as well as for the communication of information at all levels in the work organization.

Work experience is of growing importance in view of the skills, attitudes and behaviour that can only be acquired at the work-place, as many large companies have developed particular attitudes and behaviour, which it may be as important to acquire as to master the actual skills (Jallade, 1989; Levin and Rumberger, 1989).

In addition to vocational training, many European countries have increased the opportunities available for apprenticeship, or alternate training. The alternation of periods of schooling and company based training is likely to be the normal way of entering working life. Educational institutions and companies will co-operate more closely to cater for the needs of the companies as well as the needs of students.

TERTIARY EDUCATION

Mass higher education was introduced during the 1970s in most Western European countries, three decades later than in the United States. The borderline between 'mass', as opposed to 'élite' education is held to have been passed when 15 per cent of the age cohort concerned are enrolled in tertiary education (Trow, 1974). Only a few of the European countries had reached this percentage in 1965, while the majority of countries were above, or close to a 30 per cent enrolment rate in 1986. However, the European figures are still low in comparison with Canada (55 per cent) and the United States (59 per cent).

In earlier decades, the dominating problem was to expand facilities and provide places. During this phase, there was also a tendency to merge institutions that had earlier not enjoyed full status as institutions of higher education. One example of this is the Swedish Higher Education Act of 1977, which suggested a 'comprehensive university', an idea that was also put to use in Germany. Quality and efficiency of the universities has become more and more important, however, and there is a strong demand for evaluations of the quality (Veld, 1990). The consolidation of financial management for higher education in the 1980s took place at the same time as legislative attempts at power sharing between academicians, students, non-professional staff, and representatives of the community were made in many countries. In some countries, for example Sweden, Hungary, and the USSR, decentralization of decision-making has been the response to the demand for improved quality.

ADULT EDUCATION

The idea of facilitating systematic learning in adult life has had an enormous impact on the provision of general education in many European countries. Knowledge and education has come to play a prominent role in public debate, not least in view of the prospects of international competition, and increasing challenges to national industries, particularly from Japan and South-East Asia. In response to this, there has been a rapid advance in training programmes, conducted either outside or inside the workplace which has brought about a substantial growth in the recruitment of individuals to traditional general adult education.

Educational planning and evaluation

The manpower planning approach of the 1960s has been profoundly reconsidered. The approach reflected a distrust of market mechanisms and individual choices to secure the equilibrium of the labour market. However, in an environment where substantial technological progress coincides with unstable economic growth, the feasibility of the manpower forecasts have been questioned. Consequently, the manpower planning approach has been supplanted by a supply planning approach, which has been adopted by educational planners primarily with a view to combating unemployment among young people. The supply planning approach does not focus exclusively on manpower requirements as dictated by the economy, but rather on the social needs of unemployed individuals. The concern of the supply planning approach is to facilitate entry into working life by looking at the social and educational needs that the individual might have, and to try to enhance his or her chances of being employed. The rationale of the approach is the belief that skilled unemployed constitute potentially available human resources, which is preferable to unskilled unemployed.

An imbalance in growth between the supply of educated people and the supply of jobs with the corresponding educational requirements, created by a graduation of an excessive number of students, leads, however, to the problem of what has been labelled over-education. In economic terms, over-education may be seen as a problem of allotment of financial resources to an education system that produces an excess of graduates which the labour market is unable to absorb, while at the individual level, the social cost of over-education can be considerable, as individuals who feel that their jobs do not correspond to their level of education, may experience dissatisfaction and lack motivation (Levin and Rumberger, 1989).

The shift from manpower planning has also been accounted for by an increasing concern for the qualitative aspects of education. Planning is considered not primarily to be constituted by quantitative, technical projections, but also an effort to co-ordinate training with new requirements and a changing organization at the workplace.

In the planning of education in Europe, it is increasingly important to consider the implications of the rapid changes in the labour market which has been brought about by the information technology (IT) revolution, as it is certain to have important implications for planning. In this environment of rapid technological progress, there may be a need for educational planning to be more pragmatic and more operational, 'less standardized and more strategic . . . closer to the action' (Hallak, 1989).

The role of evaluation and social science research for educational planning differ between countries. The general movement towards decentralization of the education system that is taking place in many European countries has important consequences. The shift away from centrally determined regulation of aims and goals to decentralization of such aspects of education as the formation of the curriculum and of school administration means that schools and teachers to a larger degree are entrusted to realize the objectives of educational policies in such ways as they find appropriate.

For such divergent development to be possible at the same time as avoiding inequality between different schools, and to be able to determine whether pupils develop in accordance with set educational objectives, a functioning system of measurement, evaluation and monitoring is essential. As it is equally important to see whether the objectives and contents of education fit the needs and interests of the pupils, there is ideally a two-way flow of feed-back and information between the input of aims and contents, and the output of students' achievements.

At present, it is only in the Anglo-Saxon education system that performance evaluation is used extensively in a context of general decentralization. Sweden, France, and Hungary use (or plan to use) formal output evaluation as a part of a strategy to improve the responsiveness of a more centralized education system. Most countries in Europe continue to rely heavily on input regulation of the contents of curricula, structural differentiation, etc.

In the case of Sweden and France, where there is a tradition of centralized management, a wide range of participants are involved in the evaluation process. Educational institutions, and local and regional authorities are to an increasing extent responsible for changes in quality, and accountable for the progress of changes in evaluation. This means, for example, that central inspectors in France will no longer have the same role in evaluating secondary teachers (Laderrière, 1989). In Norway and Belgium there is a similar tendency to involve more participants in evaluation, not least those local authorities with responsibility for the environment in which the young grow up (OECD, 1984). In France, the extension of the evaluation process at various levels of educational organization also implies that an extended repertoire of methods are engaged, and reports are put together at the ministerial level on the current state of affairs in education, which draw on evaluative information supplied by all actors involved. The idea is to benefit from different sources of information, as well as different methodologies, and thus synthesizing both soft and hard data.

As evaluation at the level of educational institutions, and school self-evaluation is gaining importance in the process of decentralization and relative autonomy *vis-à-vis* central decrees, there is an increasing need for schools to state their goals more directly, as well as their plans for the realization of such goals (Laderrière, 1989). In Anglo-Saxon countries, this has been done by publishing the performance results of different schools, and the publication of similar school plans are now being advocated, for example, in France. The kind of information published on schools in Anglo-Saxon countries tend to have a market-oriented approach, however, in that the performance of the school is partly evaluated by market mechanisms. The presentation of high pupil achievements becomes a determinant of the ability of the school to attract clients, and quality consequently also serves competitive and commercial purposes. With this approach, primacy tends to be given to the final product, while processive dimensions, such as pupil interaction tend to be overlooked.

In those countries that by tradition have a very strong centralized administration, increasing decentralization has not entailed a greater reliance on market mechanisms to regulate and evaluate the quality of education, though school evaluations are published. In France, for example, information on schools circulated via certain media is not intended as encouragement for competition between schools on the basis of pupils' achievements. This information is rather compiled with the intention of improving evaluation practices. A catalogue of methods tested and in use in certain areas has been put together for use in schools, and by local and regional authorities. The idea is that different institutions and levels should use the same indicators, so that a set of national educational indicators may evolve (Laderriere, 1989).

The need for more research on joint educational evaluation has been voiced by several countries. The development of common methodologies is central to joint undertakings, but it is not without problems. There is a general awareness among most European countries of the difficulties in undertaking evaluations, but it is nevertheless considered vital to develop reliable educational indicators (Walberg, 1990). Several countries have experienced problems of inaccurate use of concepts, and the dissatisfaction with evaluations due to the time factor, since the social impact of education only shows after some time (OECD, 1984). Problems of funding and communication of results have also been difficult to solve. It has been argued that the development of a professional network, in contrast to administrative or political networks would be able to concentrate on specific issues of interest to all countries involved.

Educational management

Educational management in a highly centralized country, with educational policies formulated at the national level, is clearly different from that of a decentralized education system. A centralized system normally has a range of administrators below the national level, who act as representatives of the central governing authority and who are responsible for carrying out the nationally established policy. In such a system, the local education authorities are concerned with keeping up with centrally decreed policies. Local initiative or 'participation' is only involved once the educational policies are set up and are ready to be implemented, and even then, the actual method of implementation has been established at a higher level.

Traditionally centralized systems increasingly perceive a need for a more flexible response by the educational structure to the needs of its clients, as well as a need to respond to the demands of a more efficient utilization of resources. Decentralization is often advocated as a solution to the ineffectiveness of a rigid, centralized education system. It implies the devolution of decision-making power to the level of local authorities, but in order for that to succeed, an adequate upgrading of local-level resources (staff, infrastructure) must be made (Chinapah et al., 1989). If these requirements are not met, attempts at decentralization may simply be a question of delegating functions to intermediate or local authorities from above. This may be seen as a difference between 'decentralization' and 'deconcentration' (UNESCO, 1985), where the latter implies that power still rests with the central authorities, while the administrators and functionaries at the local level are in fact merely executing orders from above.

The pattern of control over curricula also reflects the form of educational administration. If curricula are formulated centrally for the whole country, a body of school inspectors are employed to guide teachers in implementing curricula, and to supervise the work to see how well they adhere to the national curriculum. Decentralized systems, in contrast, depend for their work on locally constructed courses of study, and no centrally appointed inspectors are necessary to ensure the implementation of teaching plans.

The same name of a managerial function may be found in several countries, though the meaning and actual power of the function may differ considerably between countries. School inspectors may, for example, exist both in countries with relatively centralized educational management and in those with decentralized systems, but while in some countries they serve to ensure the appropriate implementation of educational policies and are authorized to apply sanctions to teachers who do not perform satisfactorily, they may in other countries primarily function as advisers to teachers on pedagogical issues. Similarly, the role of principal differs between countries, its functions ranging from that of a senior teacher, to that of a manager, with responsibilities for curriculum and finance, selection, promotion and assessment of teachers.

Most school systems in Europe operate under the direction of a central ministry or department of education, which implements nationwide policies through a centrally co-ordinated management. The administrators at the local level perform a similar managerial function in many European countries. The differences in function depend on the degree of autonomy that these administrators have, whether the structure of management is tightly co-ordinated at a central level, and whether the curriculum has been shaped with any degree of influence from the local level.

For European universities, the basic power relationships used to be that between the guild of academics and its chairman, the rector, or the vice-chancellor, on the one hand, and the relevant church authorities or government ministries, on the other. Until recently, in several Western European countries, the rector was elected by the members of the guild. Currently, however, there is a tendency towards a wider and more politicized electorate. In some Eastern European countries, where university rectors were formerly nominated politically, the trend is now that the universities elect their own leaders and to a greater degree run their own affairs. Since 1968, increasingly more power and influence has been delegated to non-professional staff and to students. Externally, the influence of politicians, civil servants, organized economic interest groups, institutional and regional governing boards have likewise increased.

In traditionally centrally co-ordinated education systems, as for example in the USSR, schools are headed by directors, assisted by administrative staff. The administrators ensure the implementation of centrally worked out directives, though they are entitled to make some slight alteration of the programme of study, which must be justified in the event of ministerial inspection. In 1988, however, a positive step was taken to reduce the number of bodies in the management structure. Three government departments responsible for public education were merged into a single State Committee for Public Education of the USSR. The new committee is now the body responsible for the elaboration of strategies for educational development, manpower training and long-term planning, for the system of manpower retraining, and the utilization of research capacities at colleges and universities. This dismantling of the barriers that had up until this time separated the management of secondary, vocational and higher education also reflect the new view of education that has been put forth in the general context of educational reform in the USSR, of an uninterrupted and integrated process within the school, which also requires a reformed infrastructure of educational management. The democratization of the management of educational institutions, and the involvement of students in college management is therefore high on the agenda of the current restructuring of the education system.

In Germany, the *Länder* (federal states) have the responsibility for school administration, and authority is delegated from the *Land* level to the counties, and in the cases of certain large cities, to the city states. The educational management structure is characterized by a combination of federalism on the national level and centralization on the level of the *Länder* (Baumert et al., 1989). Responsibilities and competences, however, are located at different levels for the various educational stages.

In England and Wales, which have a comparatively decentralized system of education, the head teacher is the chief administrator at the school, and there is considerable variation between the programme of instruction between different schools, which is a result of the autonomy of the head teacher. Most important decisions are taken at the school by the professional teachers and the head teacher, or by the local education authorities. Together with the teachers, the head teacher exercises strong control over the structure of the school, and what goes on in the classroom. The head teacher has advisory assistance from a board of governors in the case of secondary schools, and a board of managers in the case of elementary schools.

Future prospects for educational management and planning

As the European region undergoes considerable transition during the 1990s, education systems are likely to change substantially. While the traditional role of the school was to foster national identity, education in Europe in the 1990s will emphasize the importance of strengthening co-operation and convergence, while preserving rich regional diversity. In the Western European context, the Commission of the European Communities has a medium-term plan, whose main objectives are:

To clarify proposed reforms of one education system by drawing on the experience of other countries.

To promote the shared democratic values of the member states and increase understanding of cultural diversity; this involves the introduction of an intercultural dimension into the education and training of citizens.

To develop a 'Europe of quality' by encouraging skills, creativity and dynamism. There is also a need to establish a 'Europe of mutual support' by promoting equal opportunities and the right of all citizens to have access to education throughout life (CEC, 1989).

In view of the guidelines for co-operation, the ministers of education within the European Community have set up five objectives for co-operation in the next five years, which are:

A multicultural Europe. Development of the European dimension in teaching; promotion of foreign-language teaching; taking account of the variety of cultural approaches in education and training systems.

A mobile Europe. Development of systems for recognition of diplomas and for the equivalence of qualifications; support for youth exchanges and for exchanges of teachers, pupils, students and administrators; introduction of procedures providing teachers with the opportunity to teach temporarily in other member states.

A Europe of training for all. Measures to combat failure at school; reduction of regional disparities, appropriate training for disadvantaged children, equal access to high-quality education.

A Europe of skills. Improvement in the quality of basic education, adaptation of the training of young people for economic, technological, social and cultural developments; development of all education sectors, in particular technical, vocational and higher education; adaption of content and methods to technological change; improvement in initial and in-service training of education staff.

A Europe open to the world. Strengthening of links with other states; co-operation with international organizations; new forms of mutual support with developing countries (CEC, 1989).

The role of the national state in educational planning and management can be expected to change, as the states will gradually move away from being operators to being compensators and upholders of social justice. Multinational firms and organizations already play an important role in setting standards for recruitment, selection and promotion. Certification or recognition of achievement will partly be handled by international bodies, and the national states will no longer have monopoly in this respect (Lourie, 1989).

The changing role of the state can also be seen in the trend towards decentralization of power within the educational structure. In the future, adaptation of educational programmemes and the formation of structures will increasingly be decided upon at the local and intermediate levels, while a parallel development is the tendency to centralize decisions on standards, and the assessment of results.

Formerly, the organization and management of public education was essentially based on a model of the factory, developed as an outgrowth of the scientific management movement of the early twentieth century. The idea behind the model was that if there was a science of industrial production, there was also a science of education, and that the two could be organized in the same way. The teacher would be the worker manning the production line. The student would be the product. The principal would be the overseer, and the superintendent the director. New modes of work-place organization will, however, require the independence and self-motivation of workers, and decentralization of decisions to the local units and to individuals will entail changing roles for all levels in the education systems.

A profound change in the social environment in which learning takes place will certainly be demanded in response to this development. Creating an environment that promotes self-motivation and independence will be fundamental, and rather than considering how to prepare young people for the future, planners might have to think about preparing for the future with the help of young people, in a constructive co-operative environment.

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SECTION III

The Future of Educational Planning

Seeking new paradigms to plan education for development—the role of educational research*

Daniel A. Morales-Gómez

During the last two decades, educational planning has been unable to regain the level of relative confidence that it enjoyed in the past. Several factors have contributed to the erosion of the effectiveness of planning as a tool for the development of education. These include a technocratic outlook on development processes, a naïve view of the power of education, recurrent economic and political crises, and a growing emphasis on a neo-classical economic approach to finding solutions to social problems. This has been aggravated by the theoretical and practical exhaustion of current development paradigms which exacerbate the contradictions, in the role of key social institutions such as the state and the school, and in their relationships with the society at large.

How much is known about the structural nature of these factors? What are their longer-term effects on education and development? How can such knowledge be used to reconceptualize the role of educational planning? These are questions which require closer study. However, the more fundamental question, how to re-establish the linkages between research and decision-making, remains central to the answers that could emerge.

Current development trends suggest that in the future education will be considerably more complex than it has been in the past. The quality of the information on development and education available to planners and policy-makers must be examined to determine what type of educational planning will be needed in the future, for what type of education and in what development context. How much do planners know about the relationships of correspondence and contradiction determining the development process at the international, national and local levels? How do planners relate such information to the framework of education? How reliable and up-to-date is the information being used for planning and decision-making? How and how much of such information is actually utilized? How aware are planners of the most recent diagnostic and evaluative research carried out outside the

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realm of their immediate spheres of influence? These are all questions that need to be carefully investigated.

This article addresses some of these issues. It looks at the basic assumptions in the relationship between planning and educational research. Using examples from the research environment in Latin America, it discusses the spectrum of alternatives available for re-establishing a more effective relation between research and educational policy planning.

Broadening the scope of educational planning

Projecting our understanding of educational planning into the future, requires examining the effectiveness of the methods of inquiry being used by educational planners, and the ways in which knowledge produced by research feeds into policy-planning. Despite the overwhelming quantity of information available, the gap between the relevance of the knowledge influencing the planning process and the concrete conditions of education in developing societies seems to be widening. It also seems that the transfer of information between researchers and planners continues to be ineffective, particularly in peripheral countries. In fact, it is not unusual to find that local research efforts often receive less attention than studies conducted outside these countries' borders.

This phenomenon is the combined effect of several factors. Research for planning purposes has been perceived primarily as macro-analysis and empirical in nature. It has focused on the efficiency of education as a system (its infrastructure, financing, administration, scope), on the effectiveness of the delivery process (teaching methods, auxiliary materials), or on the impact of its content (achievement, behaviour modification, skill acquisition). To some extent, this situation has arisen in response, first, to the needs of central planning structures for a broad perspective rather than focusing on specific 'pictures' of education. Views about how education is performing in holistic terms tend to be considered more suitable to decision-making processes at the national level. Second, it has arisen in response to the demands of international funding sources, which are constantly seeking world views of the problems of development and their solutions.

An additional problem has been the conceptualization of priorities in education by both researchers and policy-makers. The communication gap between these two groups has led to the identification of different areas and targets for research. It has also resulted in different degrees of importance being attached to existing research results.

An assumption often made has been that research for planning requires a solid technical capacity that can be found almost exclusively among large government departments or in networks of international experts. In the midst of comparative macro-views of the developing world, the indigenous research capacity developed in these countries over the last two decades remains largely under-utilized. This, in spite of the fact that the information produced by local researchers is, in many cases, better tuned to the problems eroding the effectiveness and efficiency of education, and richer and more innovative in terms of policy recommendations. There is thus an urgent need to broaden the scope of planning in reference to its research input.

LOOKING AT THE MICRO-LEVEL

There seems to be a consensus that a more precise understanding of the socio-political and economic challenges that will arise over the next two decades in the Third World is critical in determining the future role and impact of educational planning upon social change. Reaching such understanding requires an updating of the information base supporting our views about education. There is a need: (a) to review the limits of formal education in the context of the current development crisis; (b) to determine the capacity of impact of non-formal education; (c) to identify the lessons learned from community-based and grass-roots educational innovations; (e) to assess the effectiveness of out-of-school technical-vocational alternatives; and (f) to know more about the rationale and mechanisms of the planning process in non-centralized settings. This information base could provide planners and policy-makers with the relevant, down-to-earth feedback necessary to conceptualize, apply and critically examine the theory and practice of educational planning. At the same time, it would enable them to deal with the limits imposed by the lack of resources, short-term political agendas, and isolation from the everyday practice of education.

Throughout Latin America, there is a rich array of experiences in formal and non-formal education which remains outside the mainstream of the information flows reaching the planning and policy-making processes at the national level. The potential of low-cost innovations on community-based pre-school education, locally adapted programmes on adult basic education, new teaching practices in rural schools, inexpensive teacher-training methods, community managed skill-development initiatives, and culturally relevant teaching and learning materials is seldom recognized.

Planners are often unaware of such experiences. Diagnostic and evaluative research carried out on these type of practices remains unused or is simply not considered relevant or sufficiently technical for macro-policy purposes. However, in practical terms, these experiences and this type of research are the sources that can provide decision-makers with valuable information about the innovative praxis of education. How planners and policy-makers can access and utilize such information generated at the micro level is an issue that needs to be addressed. In doing so, the tradition of educational planning must be taken into account.

THE WEIGHT OF A DEVELOPMENT TRADITION

The 1950s and 1960s was a period in which most governments in Latin America reviewed their development strategies. They responded primarily to rising internal socio-political demands. However, external pressures from bilateral and multilateral donor countries and development agencies were important intervening factors. Through the funding of major development projects they contributed to the consolidation of spheres of political influence.[1]

Most countries at that time began to feel the effects of modernization in the forms of rapid population and urban growth.[2] One of the implications of these phenomena was the growth in demands from middle- and lower-class sectors for a stronger service infrastructure. The political emphasis on modernization, in some countries still tinted by populist connotations,[3] was also a factor in rising social demand for more and better education, health services and employment.[4] Development policies, particularly in countries with a relatively higher income per capita, were driven by the assumption that stable economic growth was attainable through rapid industrialization (Sunkel and Paz, 1978, pp. 43–97).

Although industrialization diversified the productive structure, it did not reduce the dependence of Latin American economies. Nor did it result in the anticipated self-sustained growth.[5] Industrialization only slightly improved the socio-economic standards of the rural and the urban poor (Chilcote and Johnson, 1983). For them, income redistribution, employment, housing, health, nutrition, education and the general level of consumption suffered little change. By 1970, countries in the region were spending the equivalent of only 14.5 per cent of what developed countries spent on education per inhabitant (Unesco, 1985). This situation had not changed by the mid-1970s, particularly in terms of expenditure on elementary education per student compared with industrialized countries (World Bank, 1980).

In political terms, education was a panacea for resolving some of the critical problems of development. As in most developing countries, governments in the region were convinced of the benefits of investing in schooling (Tilak, 1982, p. 108). In making these societies more modern, key assumptions were made by parents, teachers, politicians, planners and policy-makers about the 'power' of education to bring about changes that would increase social equality and participation. The school was viewed not only as a channel for transmitting knowledge and training skilled workers and managers, but also as a means of upward mobility for the poor. Education was to lead to the redefinition of individuals' values and attitudes, and ultimately to change their sociopolitical behaviour and performance as producers and citizens (Carnoy, et al., 1985; Zachariah, 1985; IIEP, 1985; Apple, 1982; Bowles and Gintis, 1976).

Social equality and the development of human resources became central to the rhetoric of educational expansion, in the attempts to introduce curricular innovations, and in the donors' rationale to financing educational development. The aim of governments was to find pragmatic alternatives to reduce socio-political pressures on the state, and to deal with emerging popular projects that gave a new emphasis to social development and participation. In such a context, educational planning was a means to secure the achievement of the state's objectives in education. A seminar organized by the Latin American Institute for Economic and Social Planning in 1965, outlined the rationale for planning as a tool for development that predominated until the mid-1970s. Planning was described as 'an instrument that operates at a pure technical level'. It was believed that 'under its action the real problems of Latin American development could be easily solved' (ILPES, 1966, p. 5). As a technique, planning was applied as though it were independent of the political ideology to which development strategies and policies respond.[6] The state, through its main social institutions, attempted to ensure that individuals acquired the 'modern values' deemed necessary for these countries to achieve higher levels of economic growth.[7]

However, the criteria on which the planning of education was based, the paradigms and methods applied in the interpretation of broader social and economic development issues, and the outcomes that ensued were heavily influenced by the contradictions within the state bureaucracies in which planners were functioning. In practice, educational planning was a mechanism for political control rather than a policy tool. It allowed politicians to achieve short-term educational objectives as well as to rationalize and legitimize decisions, to reinforce or to gain popular support, and to justify strategies and actions aimed at strengthening political positions.[8]

These factors have played an important role determining the type and sources of information required for planning. Basic diagnostic research to identify the needs to which educational plans should respond focused primarily on areas of concern to the political objectives of the government in power. Often, these were problem-areas which, provided with the proper solution, had the potential to attract mass political support and minimize dissent. Micro initiatives, usually more geographically focused, did not feed into the planning process. A similar situation took place in regard to evaluative research. In most cases, planners not only considered quantitatively oriented assessments, which could provide the 'hard' data to support policy decisions, to be more reliable, they were also more comfortable with such assessments. Thus specific evaluations which focused on ethnographic and political economy approaches were often discarded.

These factors were also determinant in the selection of the sources of such information. Producers of information who were considered not to be politically reliable by government were simply not approached. In societies with politically repressive regimes, these criteria excluded the majority of institutions and researchers related to the social sciences. And in most countries, where the higher education systems have been traditionally struggling for resources, universities played little or no role in the generation of knowledge for policy-planning.

Conceptually, educational planning has involved a double dynamic. First, it has been an instrument for maximizing the 'formal rationale' of the role of education systems by optimizing the relationships between educational development means and objectives. Second, it has been a mechanism for enhancing the 'material or substantive rationale' of development, or the relationships between educational goals and the political and economic changes required for their achievement. Educational planning was expected to bring together these two types of rationale connecting technical and political factors. Planning was perceived to be, according to Ahumada (1972, p. 35),

> a technique for the selection of means and ends according to a norm. As a technique, that is to say as a series of procedures for action, planning is neutral: neither good nor bad in an ethical sense. It can, though, be effective or ineffective, it may lead to the achievement of desired objectives. In oder to do so, it has to fulfil three pre-requisites: (a) to demonstrate that the goals are realistic, that is to say that they are possible to be achieved; (b) to ensure that the means are the best available to achieve those goals, or at least that they are effective; and (c) to prove that goals and means are compatible.

This view of planning also reflects, very accurately, the role that indirectly was assigned to research. Social inquiry was not a way of critically looking at society and at the results of development plans, but rather a means to reinforce decisions made on political grounds. Activities conducted outside the spheres of influence of government had the risk of being politically sensitive, even if they had proved to be successful at the grass-roots level. Many initiatives on popular education, literacy and community political education fell in this category. Important experimental and evaluative research considered too radical in its outlook on social equality or popular participation was excluded. Important experiences in rural peasants' education, work with Indian communities, and alternative ways of integrating the school and the community seldom attracted the attention of planners dealing with the macro-system. In practice, therefore, the use of educational planning was 'in many ways, a prime example of a form of legitimization that sustains an existing structure of political authority and power not through normative principles but through a set of procedural conventions' (Weiler, 1985, p. 394).

A CRISIS OF PARADIGMS

Planning has been expected to perform a series of tasks. Central to all these tasks has been the re-assignment of human and material resources and the distribution of goods and services according to short-term development priorities. Planning has a role in the formulation and implementation of sectoral policies in education, in the forecasting of manpower needs, and in the investment and allocation of human capital resources (World Bank, 1980, pp. 46–53). It has also been expected to generate a rational dynamic of decision-making within the system. With such a portfolio, national planning offices have been important actors in controlling the developmental role of education. However, their effectiveness in providing strategic direction over the long term is questionable.

The poor strategic capacity of educational planning became evident when some basic assumptions of the development model prevailing in the region until the mid-1970s began to crumble. To the traditional political instability was added the breakdown of democratic systems and the installation of authoritarian regimes. The service-oriented approach to basic needs shifted towards the glorification of the market as a natural instrument for socio-economic equilibrium. The hopes of economic 'take-off' were shattered by the impact of the external debt and the world economic crisis. The traditional role of the state, as provider and mediator, changed through decentralization and privatization. And the expectations about the power of education were clouded by the realization that the gap between credentials and employment remained wide for the generations that had gone through the education system.

All these events, appearing in a rapid succession over a relatively short period of time, brought into the open the weak foundations of educational planning. Planning had not been able to identify the earlier signs of the development crisis. The flow of information reaching different levels of planning became rapidly outdated. Governments' short-term priorities, availability of funds, and limited in-house research capacity were some of the factors affecting the type, quality and relevance of the information on which plans were built. Policy-makers accepted that as long as education was planned taking into account technically reliable trends determining the direction of the development process, the socio-economic effectiveness of education was protected.

In this environment, research for educational planning has remained diagnostic at the macro-level, forecasting the development process within a framework of economic indicators (Klees, 1986, pp. 574–607). The level of government research in planning has been low, its production slow, and its output costly (Prawda, 1984). When decentralization of education has been set as an objective, planning has become isolated leading to uncoordinated actions in which research plays a limited or no role.

The growing contradictions between the expected results of planning and the concrete outcomes of development show how little attention was given to three factors critical to educational planning. These are: (a) the assessment of the existing planning capacity at different levels of government, and particularly the quality of available means to gather, retrieve and analyse up-to-date information; (b) the criteria used to assign a planning role to government departments *vis-à-vis* their capacity to retrieve and utilize the results of research carried out by institutions outside government; and (c) the need to establish connections with the variety of research groups carrying out diagnostic and evaluative research at the micro-level.

As the models of development in the region faced a crisis of definition, and the gains in the economic arena began to disappear, educational planning became even more technocratic and more strongly tied to the neo-conservative goals of economic development.[9] Scholars have argued that the political culture, dominated by a sense of immediacy and by a kind of raw pragmatism, focused on intermediate problems affecting the political system while ignoring the terminal problems affecting the social system (Matus, 1987, p. 160).

Educational planning reflected once again the contradictions between 'speed' and 'direction' that have confronted these societies throughout the development process. The approaches taken to education in the 1980s have lacked the long-term direction required to strengthen socio-political and economic sustainability beyond the capacity of the state to control social unrest.[10] The development of education continues to take place without a popular base to sustain an expansion heavily dependent on the unequal distribution and use of available resources. Planning education for development continues to be divorced from an egalitarian development strategy. At a time when societies are involved in the painful process of defining a basic social project and seeking mechanisms to gain political democracy and economic stability, educational planning is yet one more instrument contributing to the transition of these societies toward associated-dependent development.

One research option to consider for making planning more development effective for the poorest sectors in the 1990s, is to explore alternatives by which to incorporate institutions and groups outside government as a permanent feedback mechanism within the planning process. If this approach appears feasible, the challenge, then, is to determine not only what type of educational planning is required for development in the future, but also how the current planning structures can be made more flexible and permeable to the accumulated knowledge that exists in the society.[11]

A framework from which to plan the future of education

The effectiveness of the school in selecting, retaining and certifying the new generation of workers continues to be a central concern among those demanding and supplying education. Formal education is still the main channel for strengthening civil society, reconstructing a stable and democratic political system, and developing an indigenous scientific and technological capacity. In countries with a large proportion of rural and indigenous populations, non-formal education and literacy have the additional task of achieving social participation among the masses.

Thirty years of planning education, according to a view of development that replicates modernization paradigms of societies in the North, have not been as successful as expected. Objectives such as universal education and literacy, the possibility of reaching a balanced pattern of expenditure between different levels of the system, and the attempts to make education relevant to the world of work and to the changing trends in science and technology have not been fully achieved. For the poorest sectors of these societies, educational policies have not made the system more egalitarian in the distribution of knowledge, less discriminatory among social classes, more instrumental in creating the new scientific and technological cadres, or more efficient in performing the functions that educational planners and educational policy-makers had in mind.

Despite the large amount of resources allocated to education, and the attempts to maintain control over the changes occurring in school systems, greater accessibility to education has not resulted in increased political participation, enhanced social mobility, or reduced tensions between the state and civil society.[12] Although a higher number of children have access to basic education, more teachers are serving the growing number of students, more textbooks and educational materials are available, and better equipment has been introduced in the classrooms, there is still a wide gap between quantity and quality of education. Most of the benefits of the educational expansion have accrued to children from large urban centres and from middle- to upper-income families. Schools in marginal and rural areas still face high dropout rates, a paucity of teachers and textbooks, poor facilities, and general isolation.[13]

The expansion of primary schooling and the attempts to make basic education available to a larger number of children continue to respond first to political priorities seeking to reach wider sectors of the population representing political clienteles. The democratic effects of education have been limited to access into the system but have not reached the capacity of the school to retain students beyond the first years of primary education, or to prepare those who survive to enter the world of work. The limited success in widening participation in society has resulted in even greater demands for the elimination of inequality in the distribution of educational opportunities as an integral part of social reforms.[14]

In countries like those in Latin America, characterized by strong class differences, profound ethnic and cultural traditions, and deep inequalities in the distribution of wealth and political power, education planned for social modernization continues to deepen existing social and economic differences. The planning of education has taken place within a pattern of development that, according to González, (1987, p. 9),

> despite its undoubted successes, also had limitations and problems, which were reflected in structural unemployment and underemployment, critical poverty, differences in productivity and income, and an asymmetrical structure of international relations together with a heavy dependence on external events over which the region has no control.

TRENDS DOMINATING EDUCATIONAL PLANNING

The approaches applied in educational planning in Latin America have not led policy-makers to design and strategically orient educational reforms and innovations that are conducive to a process of self-sustained development. The theory, techniques and instruments of planning have not been well adapted to operate with the resources available, and within the conditions and circumstances determining development in the region.

At the theoretical level, the efforts to plan education have been framed in a technocratic rationale of neo-classical economic efficiency (Psacharopoulos, 1986), and a naïve rhetoric about reaching and benefiting the poor, without looking at the inherent ideological contradictions that this implies. To a large extent this is promoted by the formal discourse of dominant lending institutions. Their influence has been considerably important given the dependence of these countries upon external financial resources to plan and implement changes in education. Planning of manpower requirements, for example, has been one of the initiatives of governments for securing the badly needed external funds to support educational change and expansion (Psacharopoulos and Woodhall, 1985, pp. 99–102). In 1980, the World Bank estimated that approximately 9 per cent of developing countries' budgets allocated to education were supported through external assistance.[15] This situation continues in the 1980s showing the precarious base of education in the region. Even in the mid-1980s, external assistance represented a major source of funds for developing countries' education programmes (OECD, 1984). In many cases, the short-term relationships between costs and political benefits in the national and international arena are the factors that determine the criteria for policy decisions.

In practice, there has been no balanced attempt to find a participatory development rationale simultaneously to assist governments in solving immediate problems and in looking at medium- and long-term challenges, while establishing means to integrate the most disadvantaged sectors into the mainstream of society. Those expecting to see a more effective role of planning in education within this framework have ignored two central characteristics of decision-making practices in the development context. The first is that in class societies, public policy formulation in education, as in many other development areas, responds primarily to priority needs for higher political effectiveness. Thus, they are not exclusively formulated in response to demands for more and better education of those who need it the most, but rather of those holding and sharing power in the network of given social relations. The second is that the relationship between supply and demand for education in societies with structurally dependent economics is not regulated by the same logic of natural equilibrium attributed to the market as assumed by neo-conservative economics of education.

Further research needs to be done on the development rationale underlying the theoretical framework in which planning is applied. Research is also needed on the potential long-term benefits that could result from current policies advocating decentralization as a means to reduce the burden on the state of financing and administering education. Given that the present conditions of widespread socio-economic and political crisis in the region will remain unchanged for several years to come,[16] it is also necessary to examine the extent to which the traditional state can continue to be a viable agent for providing the resources to finance the heavy costs of social change. This implies that alternatives that are taking place at levels other than those immediately controlled by the state must be explored and evaluated.

Little attention has also been paid to another characteristic of planning in these countries. The state constantly seeks the means to legitimize its mediating role under conditions of political instability and economic dependence. Thus, the formulation and implementation of policies in education respond to immediate economic objectives rather than to the recommendations of social research. This explains in part why after years of investment in education, the urban poor and the rural population still remain marginal to the benefits of formal education, while non-formal alternatives outside the scope of the state show higher rates of success.

The way in which educational planning has been applied, following in many cases the narrow technical expertise of institutions financing educational development, has provided the techno-political élites with a vehicle to legitimize political positions and maintain conditions of hegemonic ideological control. Planning has been useful to regulate the functioning of education systems, determine the process of human-resource development, and maintain control over distributive policy directions associated with the capitalist mode of production. Educational planning has served to justify as technically sound, decisions to accommodate education to the changes in the economic and political structure. It has failed, however, in developing a flexible pool of human resources to form a scientific and technical infrastructure. It has also failed in building a system of education that could rapidly adapt itself to an evolving world economic environment within which the region is today one of the larger net exporters of financial resources in the developing world.

Planning has been instrumental in legitimizing a view of social change as an aseptic process of social evolution linked to the growing capacity of the most dynamic sectors of the economy but unaffected by the contradictions in equality, equity and participation in the society at large. Educational planning has been understood as an end in itself, a rationale which results from a mechanistic, problem-solving approach to social and economic conflicts. Planners have ignored the fact that the technical assessment of a given development situation, estimates about its possible evolution, and the identification, design and implementation of alternative solutions to development problems are all processes deeply rooted in social conflict.

This view of development issues has been reinforced by international organizations 'playing safe' by emphasizing a separation between technical solutions to social problems and the political circumstances surrounding them. Planning, in this regard, has viewed development and social change as a phenomenon that can be externally influenced, oriented and stimulated, rather than as a dialectical process resulting from local socio-political dynamics. Research on the political economy of education focusing on these issues is urgently needed.

This understanding of the role of planning is also reinforced by a view of education as a process intended to guide the socio-psychological growth of children, rather than as a means of transmitting and reproducing a dominant ideology. In the technocratic approach to planning education for development two key factors have been overlooked. The first is that planning is an organic technical tool. That is to say, the logic of educational planning as a technique, and its use in the context of the political structure of the state, serves primarily to direct the evolution and role of education according to the dominant ideas at a particular point in time. The second is that the primary purpose of planning as an instrument of the state is to homogenize the rationale determining the economic and political practice of the power structure in the achievement of its development objectives.

Connecting research to educational planning

Throughout this article reference has been made to the lack of cohesion that exists in the region between educational research done outside the state's spheres of influence and the mainstream planning process. This section briefly reviews some relevant cases. These reflect to a large extent the national conditions within which the main actors in the research process are operating. They have in common, however, the fact that although they have been relatively successful they are still largely ignored by policy-makers (Lewin, 1987).

LOW-COST INNOVATIONS IN PRE-SCHOOL EDUCATION

One of the areas in education perhaps most often overlooked in planning education for development has been pre-primary education. In most cases, although the political importance of pre-school education is repeatedly recognized by governments, in practice its effective implementation is costly and politically sensitive.

The Centro de Estudios y Atención del Niño y la Mujer (CEANIM), a non-governmental research institution in Chile, has developed and tested over the years a community based pre-school system that relies on parents and community participation (Kotliarenco et al., 1988). The research carried out by CEANIM comprises two main stages. The first was a comparative analysis of alternative models of pre-school education. The second focused on an evaluation of the experiences of the Centros Comunitarios de Atención al Pre-escolar (CCAPs). The latter are community managed pre-schools developed and implemented by CEANIM in marginal urban areas of Santiago.

The CCAPs are community pre-schools which have as a main feature the integration of the children's mothers in the management and administration of the school as well as in the educational activities. In such a context, mothers play a key role in the teaching-learning process taking place at the classroom level, with the assistance of pre-school teachers. The aim is to involve the families more directly in children's cognitive and socio-affective development.

Following a quasi-experimental design, the research assessed the effectiveness of different models of pre-school education, including the CCAPs, using groups of children from low socio-economic backgrounds. Several aspects were highlighted by the study. Alternatives that directly involve mothers in the education of their children are substantially less expensive and more effective in the overall administration of the programmes compared with regular pre-school models. This was reflected in the management of the schools as well as in the number of children per adult (teacher). At the level of classroom communication, it was also found that the CCAPs present advantages over other types of pre-school approaches, in terms of relationships between parents and teachers, and between parents. With regard to child development, it was found that children whose mothers were directly involved in their education showed a higher level of psychomotor and emotional development when compared with children in other types of pre-schools.

Following this experience, CEANIM has continued experimenting to improve the CCAP model. The number of CCAPs has been increased, thus reaching other marginal communities in the country. Efforts have also been made to disseminate information about this experience throughout the region.

SEEKING ALTERNATIVES IN EDUCATION FOR INDIGENOUS POPULATIONS

The emphasis of planning on the state-of-practice of the formal education system in its different modalities often results in little attention being given to research on basic primary education for children and adults of ethnic minorities. In most cases, it is assumed that these important sectors of the population are served through the regular formal system. However, existing evidence indicates that these sectors are the most severely affected by educational inequality in terms of access, attrition and quality.

The Centro Andino de Acción Popular (CAAP) in Ecuador, the Centro Paraguayo de Estudios Sociológicos (CPES) in Paraguay, and the Corporación Educativa MACAC, also in Ecuador, have made important contributions to the research on the bilingual education of indigenous communities. These non-governmental research centres have carried out extensive work on formal and non-formal education being delivered to these sectors of the population. They have examined the effects of monolingual Spanish primary education on student achievement, social integration and cultural development. They have also studied the effects of indigenous languages on the capacity of children and adults to communicate and to integrate the traditional and modern culture in their everyday lives and the impact of education upon this capacity (Sanchez-Parga, 1988).

Particularly important is the research done on adult literacy by the Corporación Educativa MACAC in Ecuador. Extensive studies have been done on Quechua-speaking communities and the relevance of developing educational materials that integrate the traditional culture into the educational processes. After several years, this work is beginning to receive recognition and is now expected to play a key role in the new literacy campaign being implemented by the Ecuadorian Government.

INTEGRATING EDUCATION AND WORK

Despite the fact that research on technical-vocational education has been perhaps one of the areas that has traditionally received the most attention in terms of education planning, such research has focused primarily on large-scale, national vocational-training programmes. Research on more focus-specific alternatives to integrating education and production has not enjoyed the same success in reaching policy-makers.

The Consejo de Educación de Adultos de América Latina (CEAAL), based in Chile, has done pioneering research in education in co-operatives. A regional organization, CEAAL has carried out comparative research in five countries in Latin America to study the conditions that exist in co-operatives for the education of their members. These studies have provided adult educators concerned about basic primary education and vocational training with an overview of the advantages of integrating education and work at the workplace. Although the research has found that co-operative organizations are often plagued by economic and political constraints, in those cases where minimum conditions for their operations take place, they offer an effective environment for the implementation of educational innovations which respond more directly to the needs of low-income sectors of the population and the training needs of low-skilled production workers.

This research has been successful in documenting an area which has received little attention from educators. It has also shown the need to further explore educational alternatives that could be participatory in nature and community based.

PROVIDING BASIC INFORMATION TO PLANNERS

It has been argued that at the core of the relationship between educational planning and research is the flow and quality of information reaching policy-makers. The experience indicates that in some countries there is a rich accumulation of knowledge and information that seldom reaches planners.

The Programa Interdisciplinario de Investigaciones en Educación (PIIE), in Chile, is in the process of developing a mechanism that will not only gather information through research on issues relevant to education policy, but will also be capable of organizing and presenting such information in a format that can be easily retrieved by policy-planners. This experience involves the creation of a system by which the priorities and concerns of policy-makers and planners can be transmitted to researchers, and by which the results of research can be fed back into the planning process in a form that does not obstruct their utilization.

This is one of the few attempts in the region of a non-government research, institution to assume as one of its priorities the implementation of such a system. If successful, this experiment could serve as a model for other institutions in the region.

The relationships between development and educational planning in developing countries have been analysed from different perspectives. These views show that educational planning rests on the belief that the correlation between education and development is positive. Education is considered to have a direct influence on the socio-economic well-being of low-income sectors, economic efficiency and productivity, and political development and participation. However, no single approach in education or the social sciences has been able to generate a reliable theoretical framework so as to understand how these relationships take place in the context of underdeveloped social formations, or to identify the most effective strategies that can

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be used to control the contradictions taking place between education and development.

Latin American societies are no exception. As a result of the predominance of different and conflicting development tendencies, the developmental role of educational planning has received a variety of social, political and economic interpretations. The core ideological base of educational planning has been influenced by the economic rationale regulating the functions of the capitalist mode of production. The differences in approaches to planning education have been the result of both the indigenous understanding of the process of national development, and political strategies that have emerged in response to changes in the relationships between developed and developing societies at the international level.

Educational development in these societies over the past four decades, and the emphasis given to schooling as a central pillar in the process of modernization, have not taken place independently of the cyclical political and economic crises affecting these countries. At the economic level, governments have directed their educational strategies towards achieving industrialization and technological modernization that could lead these societies towards a more stable process of economic growth opening the doors to self-reliance.

At the social level, changes in education have taken place as part of a global effort to reduce marginality among large sectors of the population. At the political level, the attempts to change education have been led by hopes of transformation of traditional channels for political participation. Two questions usually become central to the process of policy formation directed towards changing the role of education in society: Who should be the primary target to receive the benefits of education? and How can the state design, implement and control the political and economic role of education without jeopardizing interest sectors and without deepening the conditions for potential social unrest?

Answers to these question have traditionally been found in the use of educational planning as a technique that ensures efficiency, provides a sense of order, and reduces educational and social inequality to an apparently neutral ground. Two assumptions have been central to this approach. The first implies that educational planning is a non-ideological technique based on scientific principles that are neutral and independent from the political and economic contradictions in society. The second assumption implies that planning is not affected by the relations of contradiction and correspondence that exist in the society, and that planners can function independently of the power structure to which they belong. Both assumptions deal with planning as an aseptic technocratic instrument detached from the development conflicts that exist in society.

The success or failure of educational planning in the future will be not only an outcome of the ways in which planning is conceptualized as a technique, but also the results of the inherent problems of economic and political stability that the region will continue facing. Politically, the processes of policy formation in Latin America will continue suffering from the conflicts of power characterizing the structure of the state in the region.

Given current development trends, both regionally and internationally, the chances are that the process of public policy planning will be far more complex and contradictory in the future. This responds in part to a variety of interests which governments will be forced to represent to minimize social conflicts. In these societies, the ideological diversity among the power groups competing for the control of the state, both in economic and political terms, is greater than those found in developing societies. The development of education, the formulation of policies and the planning process in the case of the latter, tend to represent a more uniform spectrum of interests. It also tends to maintain the status quo rather than to polarize contradictions and produce radical changes in the distribution of power and wealth.

Because developing societies do not evolve according to this paradigm, the process of policy formation becomes a conduit between extreme political alternatives aiming at sometimes opposite development goals over relatively short periods of time. In such a context, developing societies are often faced with profound changes in the development role of their basic institutions, including the state and the education system, in order to achieve short-term development objectives. Research in documenting these changes helps to project planning into the future. Without an effective link between planning and research, planning education becomes a limited exercise, which responds to the most immediate pressures facing those formulating and implementing policies. ■

Notes

1. At the time, many countries of the region were feeling the impact of development strategies heavily dependent on foreign aid. Among the strong modernization values of these strategies were the emphases on increasing social participation and democracy. These promoted a slow shift of national political strategies towards more liberal reforms. This was not the case in Brazil and Chile before the military interventions in 1964 and 1973 respectively.
2. During this period, only seven from among twenty countries in the region had an urban growth of less than 10 per cent, while five others had a growth rate between 25 and 32 per cent.
3. Touraine (1987) presents a systematic analysis of the trends and conditions affecting the development of the region, particularly in terms of the power relations affecting decision-making.
4. Public expenditures on education alone, grew from 3.4 per cent of gross national product in 1970 to 4.2 per cent in 1980 (Unesco, 1985).
5. Scholars have argued that over the years these trends shifted modernization towards the model of associated-dependent development that exists today in countries such as Argentina, Mexico and Brazil (Chilcote and Edelstein, 1974, pp. 1–87; Evans, 1979; Bonilla and Girling, 1973; Cardoso, 1973).
6. Jorge Ahumada, former member of the IMF and Director of the Economic Development Division of ECLA at the time, argued that 'a planner cannot determine by himself social objectives. He always works for an economic system, for a form of social organization and for a political structure. Planning thus has a purely technical character, neutral, and it cannot be considered as attached to a given political, economic or social system' (Ahumada, 1972, p. 4).
7. The modernization theory was 'based on the notion that there is a direct causal link between five sets of variables, namely, modernizing institutions, modern values, modern behaviour, modern society and economic development' (Fagerlind and Saha, 1983, p. 16).
8. An example of the use of educational planning as an integral political tool were both the educational reform implemented in Chile in the late 1960s during the government of Eduardo Frei, and the planning of the Escuela Nacional Unificada (ENU) during the administration of Salvador Allende.
9. Countries like Argentina, Brazil, Chile and Uruguay are a prime example of these changes. An illustration of the implicit assumptions of neo-conservative economics is to be found in Foxley (1983).
10. Government approaches were influenced by political pressures to maintain economic growth under a deepening economic crisis produced by a growing external debt. The effects of the region's debt on the efforts to achieve rapid growth, modernization and controlled social mobilization have been devastating, and the attempts to reduce the gap between developed and developing societies at the international level, and between lower and upper classes in the national scenarios, have been largely unsuccessful. Despite these facts, development and the expansion of social services, including education, continue without the political and economic base to sustain an expansion heavily dependent on the unequal distribution and use of resources.
11. The problems presented by the 'crisis' affecting Latin America in the 1980s have been profusely discussed from the point of view of its economic implications associated to the external debt problem (Foxley, 1983). For an analysis of the effects of the crisis on the social sciences, see Morales-Gómez (1986).
12. A prime example of this situation is found in the role of university and secondary-school students in Chile. Despite the strong intervention of the military state in education, the government has not been able to obtain political support, and the universities and secondary schools are becoming, once again, important agents for the expression of demands for social change.
13. A recent report prepared by the Centre for Educational Studies in Mexico argues that between 1980 and 1986 only 52 per cent of primary-school children succeeded in the school system, and that over the last ten years the drop-out rate has increased from 10.3 per cent in 1976 to 10.6 per cent in 1986.
14. Between 1970 and 1982, public expenditure on education in the region grew from 3.4 to 4.4 per cent of the gross national product. However, at the end of this period, that still remained 1.7 per cent below the expenditure of the developing world. Although public expenditure per inhabitant in 1982 in the region was three times higher than the average for developing societies, it was still 4.7 times lower than that of developed countries. In fact, public expenditure per inhabitant in primary education in the region

fell approximately 45 per cent in real terms between 1970 and 1978 (World Bank, 1984).

15. This situation did not change during the first half of the 1980s. Today external assistance still represents a major source of funds for developing countries' education programmes (OECD, 1984). At the same time, the larger proportion of funds being allocated by developing countries for research in education originates in donor agencies.

16. Norberto González, the Executive Secretary of the Economic Commission for Latin America, indicated in his opening remarks to the International Colloquium on New Directions for Development Planning in Market Economies, that 'we are currently experiencing the most severe and prolonged crisis of the last fifty years, which has forced us to undertake a thorough reassessment of many of our long-standing assumptions concerning development. This reassessment covers both long-term development strategies and short-term economic policies on the one hand, and the role of the economic agents and the manner in which they operate, on the other' (González, 1987, p. 9).

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Educational planning problems, decision-making and communication

Dan Inbar

Any discussion of a whole educational planning and implementation process will comprise an interactive analysis of the pertinent systems—political, economic and social—and since there is no clear end to educational plans, the analysis must continue indefinitely. Hence, for all practical purposes, any discussion of educational planning is partial and based on arbitrary decisions about the criteria and components. The validity of such decisions will be tested according to their rationale, to their eventual contribution to the understanding of the planning-implementation process, and according to their ability to improve the planning-implementation practice.

The link between educational planning and implementation can be considered the Achilles' heel of the educational planning process. This article is an attempt to develop a conceptual framework that might increase our understanding of this link, and serve as a basis for the formulation of propositions for interconnecting plan contents with the decision-making and implementation processes, and suggestions of basic outlines for future research. The conceptual framework is based on three basic components: (a) the problem, which focuses on a specific educational planning process; (b) the decisions, which have to be taken into consideration in choosing among alternative actions; and (c) the social message, for change inherent in the educational plan.

By focusing on these three components we have of course had to sidestep many others—the type of leadership making the decisions, the suitability of the administrative machinery, budgetary constraints, national development, and social structure are among the most important—but these have been treated frequently elsewhere. The rationale behind emphasizing these three components is the necessity for the active involvement of all concerned. Put differently, the implementation of educational planning is never a purely technical process; it involves behavioural change in teachers, parents, students and administrators as well as politicians.

This is essentially in line with the reasoning of the IIEP's Medium-term Plan 1984–1989,[1] which encourages those involved 'to examine planning in the context of decision-making . . .

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in the light of the specific responsibilities of teachers and educationalists' (paragraph 40), prescribes 'definition of the "zones of interaction" between planning and decision-making' (paragraph 46), and recommends focusing 'above all on the reality of planning, gaining insight into the practice of planning and its dysfunctions' (paragraph 77). Our analysis will take the Israeli Educational Reform as a case in point.

The educational reform approved by the Knesset (the Israeli Parliament) in 1968 had two declared purposes: to raise the level of academic achievement, particularly of disadvantaged children, and to encourage the integration of students of different ethnic origins and scholastic backgrounds within the framework of the school. In Israel that means integrating students from high achieving North American/European backgrounds with those from Asian/African backgrounds. Structurally a change from 8/4 to 6/3/3 (elementary high school to elementary/junior high/high school) took place. Unselective admission to an integrated district junior high school was guaranteed to all pupils who had completed the sixth grade in a neighbourhood elementary school. By setting new school districts, we intended to make these schools heterogeneous in terms of socio-economic status (SES) and ethnic origins of the students. A four-year comprehensive follow-up study was conducted to evaluate the Reform.

The problem

It is realized today that one of the difficulties in finding a scientific basis for confronting problems of educational planning is that of locating the problem, defining and identifying the decisions and actions that might effectively narrow the gap between reality and desirability. Following Rittel and Webber,[2] planning problems will be distinguished as 'wicked' and 'tame'. The distinction should not be seen as an either/or situation or a dichotomy, but rather as a continuum. Hence, each question will be answered in terms of degree—how 'wicked' or how 'tame' each problem is. Ten distinct properties are assessed below in these terms, and we thus end with profiles of planning problems:

Can the problem be definitively formulated? The more 'wicked' the problem the less definitively it can be formulated, since in order to understand a problem it is necessary to have an idea of all its conceivable solutions. The goals of the Israeli Educational Reform were defined, but there was no direct definition of the problem. Several problems were implied: the academic achievement gaps between different groups of students, general low academic achievements, the danger of social tension, etc.

Is there a criterion, an end rule, which tells us when a solution has been found? Again, the vaguer the criterion, the more 'wicked' the planning problem. The end rule of the Reform is a structural/technical one, i.e. when all schools in the country have been restructed. However, the attempt at social integration, as well as the improvement of scholastic achievement, has essentially no end rule.

Are the answers to the problem true or false or on a good-or-bad scale? 'Wicked' problems are based on value judgements rather than on objective criteria. Indeed, the Israeli Educational Reform was accompanied by a comprehensive evaluation which submitted several interim reports and a final one. Each was followed by a nationwide socio-political discussion of its results and implications. Although the reports were based on quantitative results, the discussions around them, even between the researchers themselves, were mainly value-based.

Do we have immediate and ultimate tests to evaluate solutions? For 'wicked' problems, solutions are hard to appraise, since implementation itself will raise waves of ongoing consequences. The evaluation of the Israeli Educational Reform continued for four years; it has now formally ended, but its demise was an arbitrary decision based on political expediency and budgetary constraints. There is today a continuing process of evaluation, where data is gathered for future analysis, on the assumption that the proof of this nationwide reform lies far in the future.

Is the solution a 'one-shot operation', or a continuing trial-and-error learning process? Every implementation solution to a 'wicked' planning problem is consequential. Every trial counts. One of the big debates about the Israeli Reform concerned the fact that it is an irreversible act; it cannot be tested on a trial-and-error basis. And even if it were reversed in the future for this generation it has been a 'one-shot operation'.

Do we have a fully-exhaustive set of potential solutions? For 'wicked' planning problems, definable solutions are not possible. The Israeli Reform essentially followed the American educational structure (6/3/3), but, the comprehensive schools, which include vocational streams, and the continuing development of separate vocational schools, are patterned after the British and French systems. This is mainly a structural consideration, but for the unique ingredient of the needed curriculum development, teacher-training and parents' involvement, no set of potential solutions exist.

Is the planning problem unique? Here, despite many similarities between 'wicked' planning problems, each is essentially unique. Although many attempts were made to compare the Israeli Educational Reform to other reforms, such as those in the United Kingdom, Sweden and the contemporary one in France, it was found that in the last analysis, in spite of many similarities, it is unique. Experience from other cases may be applied only in very general terms, and very little about the implementational process itself is applicable.

Are planning problems a symptom of other problems? 'Wicked' problems tend to be symptomatic because of our inability to develop full causal explanations. Obviously the planning problem of the Reform reflects other historical, socio-political problems—for instance, the basic gaps between social groups, the relatively segregated neighbourhoods and public prejudices.

Can the planning problem be explained in different ways? The importance of this criterion lies in the assumption that choosing the explanation will determine to a great extent the nature of the solution. If, indeed, the problem is a symptom of a combination of many factors, which is quite common in education, the choice of explanation is arbitrary. Actually, the planning system will tend to choose those explanations for which implementation seems most feasible—in other words, the 'tamest' explanation. It is well known that social integration, increasing scholastic achievements and narrowing the achievement gaps between students from different backgrounds are very complicated processes, and there is no one explanation for them. It is also well known that they are the result of many and diverse interactions. However, it is found again and again, as in the Israeli Educational Reform, that the main effort of planning is invested in one aspect—in the Israeli case, the structural one. In this case, structural change was considered necessary, but obviously not sufficient. It was to serve as a catalyst, triggering off new processes. However, as always, when the main effort is put on the 'tame' part of the problem, the 'wicked' parts, which might also be critical, are neglected.

Does the planner have the right to be wrong? If it is a general principle of science that solutions are only hypotheses to be refuted later, 'wicked' educational planning problems, which are not intended to find the truth but rather to solve practical social problems, are not immune. The success of the Israeli Educational Reform is often considered a political issue, and is discussed more frequently in political rather than educational terms.

Once implementation of the Reform, which is a long-range change, has begun it can no longer be considered solely as an attempt to fulfil its objectives; it is conceived as the best solution available. Hence, an analysis of the Israeli Educational Reform clearly points to the 'wickedness' of the planning problem. Moreover, profiles of social planning problems in general, and educational ones in particular, tend to be relatively 'wicked'. This fact has, of course, direct implications for the decision-making and implementation processes which will be discussed below.

At this point three things should be emphasized. As stated above, rarely will a problem be clear-cut 'tame' or 'wicked' and the resulting profiles established with each criterion analysed as a continuum might provide a better tool to get at the nature of the problems and improve our understanding of the necessary planning strategies. Second, all aspects of any plan, a comprehensive plan in particular, should be analysed separately and a separate profile established for each. For instance, the structural side of the Educational Reform discussed here has a much 'tamer' profile than the facets which deal with teaching heterogeneous classes. It should not be surprising that the structural aspects received the most attention, were the focus of the Reform, and only later was emphasis placed on the educational process itself. This brings us to the third point. Since 'wicked' planning problems are characterized by a high degree of uncertainty, it is inevitable that in translating them into action, efforts will be made to 'tame' them. This might be related to conflicts, and might raise unforeseen consequences, since the decisions will be, in the last analysis, political in nature.

The decisions

March and Simon[3] distinguish four basic types of decisions—those of acceptability, unacceptability, incomparability and uncertainty—based on the ability to identify preferred alternatives as a function of the different probabilities of a choice resulting in positive or negative results.

The acceptable alternative, which among the alternatives of action is clearly better than all others, and good enough to be accepted. Under such ideal conditions decision-making can be expected to be quite routine. However considering the 'wickedness' of educational problems, the situation in educational planning is not often ideal. The other three situations are thus more relevant.

In the unacceptable case the probability distributions of outcomes associated with each alternative are known, and a preferred alternative can be identified without difficulty, but the preferred alternative does not meet an acceptable standard. Unfortunately in educational planning decisions in such situations have to be made, whether or not the alternatives are satisfactory. It is often a case of choosing the least of several evils. Consequently, implementation will be continuously challenged.

In educational planning, the situation of incomparability seems to be a frequent problem. Here, the probability distributions of outcomes are known, but there is no way to identify the preferable alternative. Different alternatives of action may involve equally expected outcomes, or, more commonly, the alternatives themselves are very likely to produce both positive and negative outcomes. In turning back to the Educational Reform, it seems that the alternatives the decision-makers were faced with were best characterized as incomparable. Indeed, the long search for the best alternative produced several, and in the end, the decision was a political one, obtruded by a strong political figure. In such a situation it could be predicted that no evaluation project on a given reform will end up with unequivocal results.

In a situation characterized by uncertainty, the probability distributions of the outcomes of the various alternative actions are not known. This situation, together with the preceding one, is characteristic of most educational planning situations.

If, indeed, educational planning problems have a 'wicked' profile, incomparability and uncertainty will be unavoidable. Plans may be developed on the basis of expertise, but the decisions to implement them will be politically determined, that is, on the basis of subjective preference. Successful implementation of educational plans cannot be based solely on compliance and administrative machinery, but has to be widely accepted and based on broad involvement and participation. The problem of communicating the plan is thus brought into focus.

Communicating change

Diez-Hochleitner[4] defines planning as an attitude reflecting the desire for orderly change and the formation of a strategy by which the change can be brought about. Along this line of thought, planning can be seen as a message stating the process of change, and implementation is the message's formal expression. A plan is a set of symbols embodying some articulated attitude. Educational planning can be considered as a process through which the communication of shared symbols creates intent.

As states above, educational plans tend to be characterized by a 'wicked' profile, with no definitive formulation, no ends to causal chains and there are no immediate or ultimate tests for suggested solutions. Hence, educational plans can never fully convey the contents of their messages. They vary with the way in which they are perceived. Educational planning is not only an expression but an impression, and the success of the whole planning implementation cycle will depend greatly on the interaction between the two.

Educational planning is always interrelated with the socio-political sphere; the question is to what degree the plan takes this fact into account. Indeed, one of the main weaknesses of many of the 'blueprint' development plans is their negligence of unique socio-political contexts. Practically speaking, far less emphasis should be placed on the plan code, that is, its professionalized language and rationales, and more on the specific addressee of the plan, and the contacts between people, groups, administrative units and organizations. Unfortunately, today there is a need to appear to be advocating rationality, which is highly prized and rewarded and has an almost magical quality of truth and objectivity, and effort is invested in developing models, rather than contacts, involvement and commitment.

Educational planning should be considered a mode of action, a negotiating process. From this practical angle, the evaluation of the planning process, cannot wait for its output analysis, but will have to respond immediately to such questions as 'Is it or is it not opening new channels of communication?' or 'Is it or is it not stimulating new dialogues?'.

A good deal of attention was given to the opening of dialogue channels in the Israeli Educational Reform. It was long debated, analysed, discussed and approved by Parliament itself. The committee heard the views of the teachers' unions, experts, parents, administrators and politicians. The list in the Parliament Committee Report[5] seems to include every conceivable interested party.

The implementation of the Reform still met with some public opposition (and several Supreme Court Appeals), but the main message of the Reform went through. The public debate went from 'integration, why and if' to 'integration, how'.

Because planning has a 'wicked' profile, and the alternatives in decision-making are incomparable, its test is limited to how well it explains the difficulties of implementation, on the one hand, and how well it indicates ways to improve that implementation on the other. When the planning process is in practice identified with the political process, an attempt is made to make sure that the implementation process will itself be perceived by the public as a success. Here an interesting point emerges. Planning is becoming increasingly accepted and essential to the decision-making systems, but it is only its contribution to implementation that is considered; it is disregarded in the actual selection of alternatives. The distinction between feasible and possible is blurred, and the planning process focuses on the implementation phase. The problem is that the implementation process itself

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often modifies or moulds new educational goals in trying to justify implementation and its outcomes.

Towards linkage planning

Since there is no way to build a comprehensive and rational strategy of educational planning in decision-making situations of uncertainty, incomparability and 'wicked' profiles, a 'linkage planning strategy' should be developed. Linkage planning would be based on several plans, each fairly independent in its implementation, and each comprising a relatively controllable unit. *Supporting* systems would be provided for each link, which should be based on a developed communication network.

However, we need to keep in mind the fact that comprehensive plans are technically divided into stages or phases, which are dependent parts of a more comprehensive plan, whereas links should have a common orientation but be relatively independent. For such links it is easier to build a communication network, and to involve and demand commitment from those upon whom implementation depends.

In many of the educational planning processes described above, there is no way to avoid the exploratory nature of implementation. The challenge is to build an implementation network that will be flexible enough to accommodate the dynamics of such an exploratory process. Undoubtedly in such linking planning strategy, it will be necessary to develop and establish co-ordinating mechanisms for the interchange of information to activate the supporting systems, to synchronize the actions of the various links, and, in some cases, to try to tie the links together. But it is clear that linkage planning strategy is not based on linear sequences of actions, and overlapping is unavoidable. In a way, the strength of the chain is in the overlapping of its links.

Pitfalls in implementation

Every planning problem has its characteristic pitfalls, its hidden dancers and snares, and no analysis of educational planning is acceptable unless it recognizes them. The following pitfalls might serve as suggestions for research on the implementation process:

The process leading from the initial formulation of the planning problem to the recommended implementation strategy is very complex, and there are several pitfalls for which to look. For example, such complexity might reinforce the tendency to compromise and to emphasize feasibility.

Since many educational planning problems are 'wicked', the choice among definitions, boundaries, and alternatives for teatment are not established on objective bases, and are vulnerable to pitfalls. Perhaps the more 'tame' aspects are preferred, and there may be a tendency to focus on marginal questions, on the more feasible aspects rather than the more important ones.

Most educational planning decisions have to be taken in situations of incomparability, uncertainty, and therefore stress, which may lead to the delay pitfall, or to pitfalls of compromised decisions.

The complexities of educational planning might lead to the development of over-sophisticated (abstract) plans, open to qualitative bias, and to the pitfall of status at the price of non-communication.

As far as pitfalls in communication are concerned, several questions should be asked here. First, is educational planning oriented towards a multiple audience, or to a monolithic one (i.e. the pitfall of the addresser)? Second, are contact networks of implementation taken into consideration (i.e. the pitfall of inner strength and rationale)? Third, has the meaning of the plan changed during the process of communication (i.e. the pitfall of perception)?

Costs are of course central to all these considerations. 'Tame' aspects are easier to be translated into costs and benefits, and this fact, as we have pointed out, may bias decisions, the costs of solving 'tame' problems are difficult to compare with the benefits of solving the 'wicked' ones, and pitfalls are unavoidable. Concentrating on overcoming them might even discourage creativity. But the recognition and understanding of pitfalls inherent in educational planning and implementation are important. ■

Notes

1 International Institute for Educational Planning, *IIEP Medium-term plan 1984-1989*, Paris, IIEP, 1984 (IIEP/INF/84/A).

2 H. W. Rittel and M. M. Webber, 'Dilemmas in a General Theory of Planning', *Policy Sciences*, Vol. 4, 1973, pp. 155–69.

3 J. G. March and H. A. Simon, *Organization*, New York, Wiley, 1958.

4 R. Diez-Hochleitner, 'Educational planning', *Economic and Social Aspects of Educational Planning*, p. 86, Paris, Unesco, 1964.

5 *The Report of the Parliament Committee for Examining the Elementary and Secondary Israeli Educational Structure*, Jerusalem, The Knesset. See also: M. Chen, A. Lewy and C. Adler, *Process and Outcomes in Educational Practice: to the Evaluation of the Middle Division of the Educational System*, Hebrew University of Jerusalem, 1971; D. Inbar, 'The Israeli Educational Reform: The Paradox of Feasible Planning', *Comparative Education Review*, Vol. 25, No. 1, 1981, pp. 13–27.

Integrated development of human resources and educational planning

Vinayagum Chinapah, Jan-Ingvar Löfstedt and Hans Weiler

The nature of the task

The principal objective of this article is to draw some conclusions from the critical assessment of educational planning in which the authors and others have been involved over the years (cf. Weiler, 1980; Levin, 1980; Chinapah and Löfstedt, 1983). This critical assessment has focused not only on the process and outcome of educational planning itself, but on some of the broader assumptions and premises about education and the development of human resources on which the theory and practice of educational planning

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has been based. In other words: The shortcomings of educational planning are seen as having their roots not just in the process itself, but also in the conditions under which, and the context in which, it operates.

The main argument of this article is that, for educational planning to become a more effective tool in the development of human resources, it will have to re-establish its linkages with a broader range of human competence beyond what is needed in the world of work, and become part of a wider array of social and educational interventions both within and beyond the formal education system.

The conceptual key to this argument lies in a re-interpretation of the notion of human resources and their development. This re-interpretation recognizes the need for thinking of human resources development as encompassing a much wider range of human competence, that is, not only the kinds of competence that are relevant to productive work in the economic sector, but also those that human beings need to protect and improve people's health, to keep population growth within reasonable limits, to sustain and develop cultural traditions and identities, to enjoy recreational activities, to put nutritional resources to the best possible use, to preserve a less hazardous and endangered environment, and—last but not least—to assume and play an active role as a citizen. All of these kinds of competence constitute, in the aggregate, a society's 'human resources'. To develop these resources presents a major challenge for a society and for those agencies which, like the education system, have a special mandate to contribute to this development. At the same time, this re-interpretation of the notion of human resources needs to recognize that the entire burden of this encompassing task cannot be carried by the formal education system alone, but is being, and has to be, shared by a number of other mechanisms and institutions as well: various 'informal' educational activities, literacy programmes, grassroots movements of various kinds, community development programmes, the family, various training programmes and the media.

It is along these two dimensions, broadening the range of human competence with which human resource development would concern itself and expanding the range of strategies or 'interventions' for developing such competence, that we shall need to construct a new matrix of human resource development. This article will show how such a new conception of human resource development will lead: (a) to a new form of planning, 'human competence development planning', which would guide, co-ordinate and integrate the different subsectors of human resource development; (b) to a new meaning of 'education' as one of the key interventions in the development and improvement of human resources; and (c) against the background of both (a) and (b), to a more appropriate and effective notion of educational planning.

Before moving to the task of developing a new matrix of human resource development, this first part will review and summarize the evidence on the inadequacies and problems of a notion of educational planning that is predicated on an overly narrow conception of human-resource development. This evidence is of two kinds: first, a set of observations and conclusions on problems internal to the structures and processes of educational planning, to be followed then by an analysis of the problems and, indeed, crises that have emerged in the environment of educational planning and policy.

EDUCATIONAL PLANNING: THE NATURE OF THE PROBLEM

The empirical basis for the problems identified in this section is derived from surveys conducted in recent years in African and Asian countries in a project supported by the Swedish Agency for Research Co-operation with Developing Countries (SAREC) based at the Institute of International Education at the University of Stockholm (Chinapah and Löfstedt, 1983, 1985). For purposes of this diagnostic, we treat separately a number of aspects, such as the various imbalances of educational planning, the problems in the information system, participation and decentralization in planning, mismatches in the supply and demand of manpower, and the major problems of educational financing.

Imbalances in educational planning

In its institutional infrastructure, educational planning tends to suffer from major vertical and horizontal imbalances in terms of resources, responsibilities, and functions. Along the vertical dimension, educational planning is often highly centralized and hierarchical, which leads to the less than optimal utilization of human and material resources and effectively creates a substantial cleavage between planning and the base of the education system. Decision-making authority and control tend to be concentrated at the top, with very little delegation of authority, which often makes officers at the centre overburdened with relatively minor decisions which could have been taken at lower levels and for which they also lack adequate information. Shortages of sufficiently qualified staff at lower levels are another reason why decision-making is referred upwards and away from the actual implementation situation. Many governments have tried to compensate for lack of qualified staff by providing rules and regulations to guide the work at lower levels, which tends to create a rigid climate and to stifle the initiative and judgement of individual officers.

At a horizontal level, a growing bureaucracy with ever more specialized functions has also led to the increasing compartmentalization of administration and decision-making, which makes inter-ministerial and inter-departmental co-ordination even more difficult than before.

As a result of socio-economic bias in the recruitment for civil-service positions, the educational planning and policy-making system tends to be staffed predominantly by members of the upper social strata. It is usually also dominated by men. Lower-status social classes, castes, ethnic and religious groups as well as women tend to be grossly under-represented among planning and policy staff. These socio-economic, cultural, ethnic and gender imbalances help sustain, in turn, biases in staff recruitment, the definition of problems, the identification of priorities and the design of solutions. These imbalances also may be related to a lack of awareness of existing socio-economic biases in the provision of education across social, ethnic and regional groups, and of the lack of sex equality. The planning staff thus fails to monitor the system properly and to develop appropriate indicators (for example, student achievement by socio-economic status, ethnicity and gender), which would be needed to eliminate or reduce existing imbalances. Large reserves of human resources among the poor and among women thus remain under-utilized in the planning, management and delivery of education, and most education/training development projects lack an orientation towards the particular situation of women and the poor.

A related dimension of imbalance in educational planning and policy manifests itself in the failure to achieve a rational distribution of staff both vertically and horizontally. Many highly qualified officers are concentrated at the top and the centre, which is the most attractive, and the result is a shortage of adequately trained staff at lower levels of the administration and in outlying areas. Another reason for this maldistribution is the promotion and transfer practice in most planning organizations, which tends to lead to a brain drain from lower to higher and more central levels in the system.

As will be discussed below, the heavy involvement of many developing countries in external assistance programmes leads to a situation where, among the central-level officers, an inordinate number of qualified staff are absorbed by the planning and implementation of externally funded projects at the expense of non-aided projects and programmes. In many countries, large numbers of expatriate specialists tend to be involved in central-level planning, thus blocking promotion avenues and delaying the 'focalization' of staff.

Shortcomings in the information system

The information base and the data for educational planning are often inadequate in terms of both the present state of the education system and the tendencies and projections for its future development. Even in such seemingly 'easy' tasks as projecting the need for teachers on the basis of student demographics, planners have been frustrated by their failure to take into account such factors as migration into and out of the teaching profession or the shifts in the role of women *vis-à-vis* the teaching force. The reasons for these shortcomings have to do not only with lack of facilities or technical training and with the difficulties of predicting socio-economic trends, but also with issues of orientation and approach. The collection and analysis of information for educational purposes is subject to a variety of biases in terms of methodology and the definition of what is and is not relevant information. There is usually more emphasis on quantitative than on qualitative data, and more stress on easily measurable criteria and indicators even though they are less significant. Dropout and retention rates may be registered, but without their socio-economic, ethnic, linguistic and gender correlates. These various information biases reflect in many cases both the dominance of particular research and information paradigms, and the socio-political imbalances in the composition and deployment of planning staff.

Participatory planning and decentralization

Devolution of planning tasks and more participatory planning are seen (or at least professed) by many governments as ways to reduce the central bureaucracy, promote democracy and equity, adjust educational provisions to the needs of users and mobilize local resources. In order to be successful, however, they must meet a number of requirements which are often overlooked or neglected. Devolution is seldom accompanied by a corresponding upgrading of local-level resources (staff, infrastructure, etc.). The delegation of decision-making power and even the transfer of material resources may be of no avail if there is no adequate capacity at the local level.

Decentralization also presupposes improved co-ordination in order to avoid undesired effects such as increased regional disparities due to an uneven distribution of resources. Decentralized decision-making and planning also require familiarity with, and commitment to, democratic procedures and praxis to allow different local interests a fair chance to exercise their influence. The experience of many developing countries suggests that socio-economically more advanced regions and élites tend to benefit the most from decentralization and devolution. Decentralization thus tends to be implemented on the terms of the strong and to the detriment of the weak.

Educational planning, manpower needs and employment

Very few education systems in developing countries are truly successful in providing the right types of qualification in the right quantity to the right people at the right time. Reasons for this mismatch include both technical inefficiencies in the education system and in the planning structure, and the imbalances referred to above. However, there is also a political problem of distribution since a large number of people in a given society compete for relatively scarce educational services and opportunities. Political pressure inside and outside the education system is common and may take many different forms. Funds allocated for the expansion of primary education, for instance, have been known to be diverted to secondary and tertiary education as a result of political pressure from the urban middle class. Other well-known problems include the relative oversupply of highly trained manpower as a result of rapid expansion of higher education, and the increase in the percentage of unemployed and underemployed school-leavers in many areas. Common deficiencies in the provision of manpower have to do with: (a) the undersupply of middle-level manual/technical manpower; (b) an oversupply of middle-level white-collar manpower; and (c) an oversupply of high-level manpower, especially of graduates of the arts and humanities, combined with a simultaneous shortage in certain other areas such as agriculture and forestry.

Many developing countries face great difficulties in achieving optimal horizontal distribution of manpower across different sectors, both within the modern sector and between the modern and traditional sectors. Equally difficult seems to be the problem of the vertical distribution of manpower, or how to gear educational output to the optimal structure of the labour force by skill levels. Policy-makers and planners in many countries seem to lack the proper methods and techniques to assess correctly the ratios between high-, middle-, and low-level manpower, given the existing level of technology. Obviously, the problem of correctly projecting the supply of manpower vertically or horizontally relates not only to the output capacity of the education system, but also to existing vocational guidance and labour-exchange services which tend to be rather inefficient. As a result, the problem of providing employment to graduates in relevant fields seems to be considerable in both socialist and free-market systems. A Chinese study found that out of about a million graduates from colleges and vocational schools in the early 1980s, less than half were actually working some years later in the fields they had been trained for (Lofstedt, 1986, p. 14).

Finance and planning

The effective integration of budgeting and planning has always been one of the more difficult parts of the policy process in education. While the lack of such integration is serious enough under the best of circumstances, it becomes a matter of grave concern in periods of increasingly severe resource constraint (Lewin, 1987). The following are only the most prominent manifestations of the problem which many developing countries encounter:

A lack of recognition of the importance of educational development resulting in inadequate allocations of financial resources to education.

Late disbursements by central agencies causing delays in programme implementation.

Ad hoc reallocations of funds during the plan period (as a result of changed priorities, demands, political pressure, etc.) causing disturbances in programme implementation.

The difficulty of managing and co-ordinating funds coming from different sources (public, private, external, local, etc.), which leads to the ineffective and haphazard distribution of financial resources.

A lack of central funds which may tempt governments into undertaking premature decentralization (to encourage local fund-raising) or into promoting the privatization of education (which may solve some financial problems but at the same time create new problems of co-ordination and planning).

The inventory of problems presented in this section is by no means exhaustive, but suggests the range of problems which the practice of educational planning in many developing countries has encountered. Some of these problems are of a more 'technical' or organizational nature, and could be seen as resulting from deficiencies in existing structures and processes which, at least in theory, could be remedied. Other problems seem to be of a more functional or 'organic' kind in that they reflect conditions and cleavages of the wider socio-economic and political system of which educational planning is a part. Some of the staffing patterns discussed above seem to be of this kind. Whatever strengths or weaknesses educational planning may have cannot be adequately understood without understanding the dynamics and constraints prevailing in its environment.

PROBLEMS AND CRISES IN THE ENVIRONMENT OF EDUCATIONAL PLANNING

As the previous section has shown, educational planning has had a good share of its own problems, problems that have to do with the way in which the process of educational planning is conceived, organized, structured, carried out and evaluated. If these were the only problems, however, they might be remedied by some internal reforms of the educational planning operation itself; indeed, there has been some improvement over the years in such matters as the information base for educational planning, the quality of planning staff, the sophistication of projections, etc. (see Psacharopoulos and Woodhall, 1985).

While such reforms in the internal workings of educational planning have helped, they fail to address the full nature of the problem. For educational planning, just as education itself, is deeply affected by its environment, by the kinds of problems and crises that have emerged in the social and political context of education systems. It would carry us beyond the scope of this article to engage in a more detailed discussion of this environment and its crises, but of particular significance for our argument here are: (a) the crisis of the state: (b) the crisis of the production and utilization of knowledge; and (c) the crisis of the system of international development co-operation.

The crisis of the state

To put the issue in the shortest possible form, the modern state, in developed and developing societies alike, is 'overloaded' (Rose, 1980). The demands placed upon the state are constantly increasing, while its capacity to respond adequately remains at best constant and often declines as a result of declining real resources, greater complexity of its tasks, and greater controversy about both the ends and the means of the policy process (Habermas, 1975; Wolfe, 1977; Weiler, 1978). The implications of this 'crisis of legitimacy' for educational policy and planning are of two kinds. As the social demand for education continues to play a powerful role in the social dynamics of most countries, the delivery of education services becomes an important indicator and symbol for the state's willingness and ability to respond to the needs of its people, and thus plays a critical role in the overall strategy of the state to retain both its power and its legitimacy.

The crisis of knowledge production and utilization

It has always been an article of faith, at least at the level of rhetoric, that knowledge and research were an integral and indispensable element of the policy process, in education as elsewhere, and that good planning needed good research just as healthy children need good nutrition. The reality of that relationship between knowledge and action, between research and planning has always been problematic. In the special case of educational planning, the relationship has been particularly problematic, at a number of different levels. First of all, the knowledge and information base of educational planning has been notoriously poor.

At a second level, educational planning has generally found it very difficult to absorb and utilize such research as does exist on the relationship between education and work, on the determinants of educational outcomes, on the nature of decision and resource allocation processes in complex organizations.

Finally, educational planning has not functioned at all as a stimulus or a catalyst in a world of research which, as far as education is concerned, is badly in need of stimulation and re-thinking.

The crisis of international development co-operation

Aid under both bilateral and multilateral auspices has played quite an important role in the development of education in the Third World. Although limited in quantitative terms (roughly 10 per cent of total educational expenditures), the association of educational aid with technical assistance and expertise and the 'model' character of many aid-supported projects have helped to make the impact of aid significantly larger than the mere figures would suggest.

But the resource issue is only one, and not even the most critical, aspect of what looks like a serious crisis in international development co-operation. At least as important are: first, a considerable deterioration in the relationship and interaction between donor agency and recipient countries, particularly over issues of tied aid and over conditions and modalities of aid agreements; second, the increasing debate over whether the existing system of international development co-operation makes any sense; and, finally, the role of external aid as a vehicle for importing alien cultural elements.

THE GAP BETWEEN EDUCATIONAL PLANNING AND THE INTEGRATED DEVELOPMENT OF HUMAN RESOURCES

The preceding sections have provided a brief overview of some of the major shortcomings, fallacies, and crises in educational planning.

These shortcomings have been seen in part as a function of weaknesses and inadequacies in the internal functioning of educational planning, and in part as a reflection of much broader problems which pervade the political, economic, research and international environment within which educational policy is being made. In this section, we will return to one of the claims made at the outset, namely, that educational planning is predicated on, and tends to reinforce, an overly narrow conception of human resource development.

Inspired by human-capital theorists and economists of education, the conceptual, methodological, and empirical 'classics' on educational planning have tended to concentrate on purely economic criteria for ascertaining the roles and functions of education—formal schooling as a source of skills, qualifications and certifications relevant to the domain of production (see, Shultz, 1964; Psacharopoulos, 1973; Blaug, 1968). Educational planning had to be geared towards the manpower required for the economic growth of society, human beings were to be made more productive and educational planning was seen in this context as a vital instrument for gearing educational development towards the economic needs of society. Although severe doubts and criticisms were raised on the limited roles and functions attributed to educational planning in the process of human resource development, evidence shows that the application of economic rationales for human resource development remains up to the present a powerful maxim in the theory and practice of educational planning (see Youdi and Hinchliffe, 1985; Lourié, 1985).

Notwithstanding attempts in different directions, the fact remains that a primarily economic analysis of education has tended to distort the very conception of the human element in the process of development. Recognizing this limitation, efforts were made in the 1970s to redefine human resource development in terms of a strategy for satisfying basic human needs (Chinapah and Fägerlind, 1979). The whole purpose of development was not to be to develop things but to develop man. In this context, educational planning was seen as instrumental in the process of an all-round development of human beings, intellectually, socially, politically, morally, aesthetically and physically. It seems fair to say that this earlier effort at reconceptualizing the notion of human resource development away from a purely economic construct has had limited impact on the reality of educational policy and planning.

Concepts and policies for the development of human competence

This section of the article addresses the task of rethinking not just of the nature, theory and practice of educational planning, but of our conception of development altogether, and of the ways in which human beings relate to it, by generating, against the background of the diagnostic performed in the previous section, a conception of development based on the notion of human competence. This conception will, in turn, lead to a new and different understanding of the role of planning in the development of human resources as well as the role of educational planning for the development of human competence.

THE HUMAN FACTOR IN THE DEVELOPMENT MATRIX

The concept of development underlying the notion of human competence is predicated on the role of people as autonomous participants in the process of social change and improvement, capable (competent) of both understanding the complex dynamics of development processes and of affecting and influencing the direction of these processes (Gran, 1983). Just as 'development' has many facets, the human capabilities and competencies required to participate actively in these different facets range as widely. Once we understand development as no longer limited to the realm of economic production and consumption, but as also including such things as the sustenance of cultural traditions and identities, the quality and ease of interpersonal and intergroup communication and action, the inculcation and growth of active and critical citizenship, the possibility for recreation and creative uses of leisure time, and the achievement and preservation of good health, the range of 'human competence' required to sustain this wide array of development objectives expands correspondingly. To achieve this range of human competence in a concerted, coherent fashion thus becomes a major policy challenge. To plan for this concerted effort gives a new and both more ambitious and exciting meaning to the old notion of human resource development. Inasmuch as education plays a role in bringing about this new range of human competence, educational planning would become an integral part of this new overall effort at the planning of human competence development, and we shall deal later with what this will entail for the future of educational planning as we know it.

But let us return for a moment to the overall concept. One of the

Intervention	Areas of human competence						
	Work	Study	Health	Culture	Polity	Environment	Peace
General education							
Vocational training							
On-the-job training							
Family upbringing							
Community development							
Literacy movement							
Mass media							
Cultural institutions							

FIG. 1. Types of intervention and areas of human competence.

elements of the new concept of development is the multiplicity and diversity of human competence that is required to sustain the ideal of the autonomous, active participant in the development process. In Figure 1, the most important among these areas of human competence are indicated across the top of the matrix. While these do not necessarily cover all the capabilities that would be needed, they would seem to represent the most significant ones. They are probably self-explanatory, but it may be important to emphasize once more that, while many of these capabilities are related to one another, they also represent objectives in their own right. For example, it is obvious that poor health and nutrition will have a detrimental effect on a person's ability to participate in the process of economic production. At the same time, however, there is absolute and independent value in sustaining peoples' health and physical well-being regardless of its impact on their productive abilities.

The point of the matrix in Figure 1 is precisely to visualize this complex relationship between, on the one hand, the objectives of developing competence across the full range of human activity and, on the other hand, the array of strategies that are available to achieve those objectives. These strategies can be identified in terms of their institutional source (family, school, media, etc.) or in terms of the kind of intervention (resource allocation, literacy training, regulation, publication, etc.). For purposes of illustration, the matrix in Figure 1 includes examples of both. Each 'cell' of this matrix represents a more specific instance of intervention; for example, the production of a nationwide magazine for newly literate people would appropriately represent an intersection between the 'literacy' strategy and the objective of better social communication competence; similarly, one might think of the combination of different strategies for achieving a particular objective, as in a combined media and educational campaign in favour of certain family planning programmes; the development of competence regarding nutrition may involve regulatory measures by a government (for exemple, the proscription of certain foodstuffs) as well as media and community development programmes on the better use of local products.

HUMAN COMPETENCE DEVELOPMENT AS A CHALLENGE TO POLICY

The notion of human competence as a key issue in development, and the complex set of social interventions involved, present a major challenge to the world of policy. At the policy as well as at the conceptual level, some of the simplifications of conventional and overly narrow models of human resource development will have to give way to more complex and comprehensive policy strategies. These strategies will have to be cognizant of both the broader range of competencies that form the objectives of human competence development, and of the richer set of social interventions that can be mobilized to achieve those objectives. As a result, policy will need to adopt a posture of much greater cross-sectoral concertation. This change in policy posture will, in turn, affect at least three different domains of policy: planning, the organization and structure of the policy process, and the role of knowledge and research in the making of policy.

Planning the development of human competence

The kinds of human competence that have been defined in the previous section are delivered through more or less formalized and institutionalized agencies according to more or less clearly defined intervention strategies. A task of such complexity requires careful and comprehensive planning in order to maximize the contribution of each intervention or set of interventions to achieving the desired competence. This kind of planning can only succeed on the basis of:

(a) a thorough examination of the kinds of competence people have or lack with regard to the different areas of human activity; (b) a conception of human beings as autonomous and dynamic agents of change; and (c) a consistent and well-defined policy of development that is predicated on (b). In this situation, those responsible for planning the development of human competence face a number of specific tasks, such as: (a) assessing the strategies, institutions, modes of delivery and target groups in the present human competence development system; (b) identifying gaps and overlaps in delivery; (c) predicting future competence needs; (d) considering alternative strategies and modalities; and (e) designing and implementing evaluations.

Human competence development and the organizational structure of the policy process

To conceive of a policy of human competence development does not necessarily call for new and different structural arrangements. Several of the policy and planning functions required by such an approach could quite possibly be executed through already existing administrative structures. Making use of existing structures would certainly avoid the creation of additional bureaucratic machinery which, as we have shown, is one of the reasons for the dilemmas which the modern state faces. What the 'human competence' approach to policy will require, however, is (a) a restructuring of tasks within existing organizational entities, and (b) a major rethinking and revision of the linkages between the various organizational and administrative units involved in one or another aspect of the development of human competence. An example of (a) would be the restructuring of both the agenda and the organization of a Ministry of Education (or a Ministry of Communication) to reflect more adequately the full range of human competence to which the education system should be geared. The linkages mentioned in (b) should be such as to facilitate and ensure concerted action between, say, Ministries of Health, Education, Community Development, and Communication in the interest of a joint programme towards more adequate family planning. The precise nature of the linkages to be established will be a function of specific conditions and traditions in a given country; they could be in the form of inter-departmental councils or national networks, might involve public and non-governmental agencies or representatives of the groups who are to benefit from a given policy, etc.

Knowledge needs and the role of research

The nature and complexity of policies for the development of human competence places great demands on the supply and management of appropriate information. Given the cross-sectoral quality of these policies, this information will have to come from different domains of knowledge (health sciences, communications, food research, social psychology, etc.), and will have to be carefully integrated to provide an adequate knowledge base for decisions, planning, and implementation. The design of an ongoing evaluation of policies for human competence development is particularly important as a means to adjust the 'mix' of intervention strategies in the light of accumulating experience. The structures and organizational arrangements for this task of producing, processing, and disseminating appropriate knowledge will again be a function of each country's specific conditions and, especially, the existing infrastructures for the generation and utilization of knowledge. The important thing seems to be the realization that: (a) research and development form a particularly indispensable prerequisite of successful policy where the development of human competence is concerned; (b) that the identification and improvement of the kinds of competence needed at the grassroots level will require a particularly and serious research effort; and (c) that the effort to generate the knowledge needed has to reach across conventional disciplines, schools of thought and methodologies.

The role of education and educational planning

Moving from the narrow confines of the conventional notion of human resource development to the concept of human competence that has been developed in the previous section opens up a wide and complex field of policy ideas and action. Moving beyond purely work- and productivity-related capabilities towards the full range of competence for the development of human potential provides a first step towards a more integrated policy framework for attending to and supporting the human element in the development process: Health, cultural traditions, citizenship, nutrition, and recreation are no longer seen as more or less isolated 'sectors', assigned to the responsibility of separate governmental or non-governmental agencies, but become at least potentially part of an overall strategy for the comprehensive development of human competence and of human resources in a wider sense.

At the same time, the matrix developed above (Fig. 1) allows us to accommodate conceptually the multiple strategies that are available for the purpose of developing human competence in its various realms. Some of these 'strategies of intervention' may well be more appropriate for certain kinds of human competence than for others, but each strategy has a potential role to play in the overall task of improving human competence as a development objective in its own right. It is this 'orchestration' of different strategies which lies at the heart of the planning effort that the previous section has described: 'Planning the development of human competence' is a task that not only has multiple objectives, but also employs multiple strategies, and thus requires a very special effort of co-ordination and equilibration.

It would carry us beyond the scope of this article to map this entire area of policy and planning for human competence development in any more detail than has been provided in the previous section; we see this comprehensive mapping as a major theoretical as well as political task, and recommend it to the attention of our colleagues in the field of development studies as well as policy analysis. We are struck, for instance, by the possibilities that a more integrated conception of human competence development would open up for a more concerted use of traditional learning systems, literacy work, and community development programmes for strengthening competence in such areas as health, nutrition, cultural awareness and social interaction.

While education, as we have shown, is only one of several strategies for intervening in the development of human competence, it continues to attract particular attention because of: (a) its extensive presence throughout a society and across most regional, social and cultural cleavages; (b) its susceptibility to being re-directed or manipulated, more easily than many other social institutions, by the state and/or powerful social and economic forces in the society; (c) its critical role in providing, through its certification function, access to a variety of social statuses and rewards; and (d) its considerable cost to a society in terms of both material and human resources.

IMPLICATIONS FOR FORMAL EDUCATION, PLANNING AND ADMINISTRATION

As a strategy for the development of human competence, the formal education system has at least the potential of making a major contribution. Whether or not it will make that contribution depends in no small measure on whether our thinking about formal education can move beyond the exclusive or dominant preoccupation with preparing people for the world of work. Once this limited focus has been overcome, there is a wide range of policy initiatives that would enhance the contribution of formal education to developing various kinds of human competence, and that would have obvious implications for how much of what competences are provided when and how in the context of the school system. Regarding these implications, we will concentrate on curriculum and the teaching and learning activities in the school system, and the planning and management of school systems.

The notion of competence refers to a broad set of physical and mental qualities and assets that human beings need to deal autonomously and effectively with various life situations in order to create better conditions for themselves in constructive interaction with others. Competences thus include knowledge about various important aspects of human existence, the skills to handle mental and physical tools in a creative way, and the ability to interact with other people in a variety of contexts, including conflictual ones.

Curriculum development and the teaching-learning process

Curriculum development thus becomes a case in point. It would start by identifying the main areas of competence that could best be dealt with in schools, rather than by other agencies such as health services or co-operatives. The most important task, however, would lie in constructing a curriculum that recognizes the radical redefinition of the relationship between school and the rest of society that the notion of human competence development implies. Such a curriculum would relate more directly and explicitly to the various realms of human and social activity where competence is needed. The knowledge and skills imparted cannot be artificially fragmented and presented in small portions according to some inner logic of the subject. The teaching-learning process cannot be arbitrarily cut into fragments of time called 'lessons'. The role of the teacher would have to be redefined into that of not only transmitter of knowledge and skills but of active intermediary between the learner and situations where competence of a given kind is generated, delivered and applied.

This kind of teaching-learning process will require multiple linkages between the school and the classroom, on the one hand, and people and institutions active in the respective area of human competence (for example, (a) in culture, theatres and actors; (b) in policy, political parties and government authorities; (c) in work, employers and employees in enterprises). The different rows in our human competence matrix, in other words, constitute meeting points for different agencies involved in developping the same or related sets of competence. In this interactive mode, it will be possible for competences to be acquired in real-life situations where they are applied and demonstrated by people who have mastered them; theory and practice can be integrated in a way that is not only pedagogically and cognitively sound but also conducive to a more concerted development effort.

Planning and management of school systems

In discussing the role of formal education in the development of human competence in the previous section, some necessary changes in the construction of the teaching-learning environment and other aspects of the education system have been discussed. These changes will have implications not only for the classroom, but for the wider issue of planning and managing education systems, such as administrative and organizational structures, personnel, research, information use and information management, and evaluation and monitoring.

The existing administrative and organizational structures for educational planning, in developing countries as elsewhere, cannot accommodate the planning of an education system which seeks to cover the wide range of human competence required in different domains and sectors, and which also aims at much closer interaction with a wide variety of other agencies in a more integrated effort of human competence development. At present, the administrative and organizational structures for planning are tightly linked to the mandates of different ministries (health, education, arts and culture, manpower, human resources, youth and sports, social services, women's affairs and information). In the context of human competence development, however, educational planning must be part of an intersectoral approach to the public administration of human resource development. These intersectoral arrangements are vital at ministerial, departmental, and institutional levels so that the flows of information and communication across the sectors of human development may facilitate the educational planning processes, and in particular, the resource allocation and distribution procedure.

An improvement of the organizational and administrative structures for educational planning within the context of human competence development requires new roles and functions of the planning personnel. Educational planners have to play new roles and assume new responsibilities that are rather different from their conventional professional profiles. So far, the main concern of educational planners has been to estimate the inflows and outflows of students and teachers in the formal education system, the planning of school facilities, and rather technical projections for the allocation and deployment of resources. Their training was oriented towards the limited functions of formal schooling in a more restricted concept of human resource development. By contrast, the new tasks set for planning within a new and more holistic approach to human resource development place new demands on the skills and understanding of educational planners. This means that both the pre-service and the in-service training of educational planners is to be readjusted to their new roles, functions and professional identity. These training and staff-development programmes need to have a multidisciplinary structure, content, and orientation so as to enable educational planners to understand and cope with their new tasks.

The nature of the knowledge needed for a successful implementation of strategies for human competence development will require a special research effort. This research would be multidisciplinary and flexible in terms of design, methods, and analysis. Performance indicators would no longer be school achievement alone but also include psychological and biophysical indicators. The quality of researchers and the nature of conceptual frameworks, instruments, and methodology would be oriented towards the diversity of inputs and effects envisaged in the areas of human competence development, including the expansion beyond primarily work-related kinds of competence. A range of methods will probably have to be used, including both experiments and quasi-experimental methods for complementing each other.

The information base for educational planning in the context of human competence development has to be improved in both quantitative and qualitative terms. Beyond educational data and statistics, information from other sources (health registers, records on cultural and social activities, household surveys, etc.) will become of critical importance for the planning effort. Besides expanding the sources of information, the information management system needs to be improved and a systematic dissemination procedure has to be created in order that different actors and beneficiaries may be properly informed about the innovations, policy changes, and reforms taking place in all areas of human competence.

The evaluation and monitoring of the extent to which educational planning accomplishes its different tasks in human competence development will demand not only a larger data base but also an integrated system of evaluation and monitoring. This system will have to take into account the organizational and educational innovations proposed, the heterogeneity of aims and objectives and the resulting value conflicts, and the diversity of different clienteles. The interactions among various actors and beneficiaries and at various points in the implementation process call for a participatory system of evaluation and monitoring with continuous dialogue, interventions, and feedback from a wide range of personnel involved in the overall educational effort. In keeping with the principle of linking and concerting interventions by different agencies, joint evaluation and monitoring teams with representatives of different agencies would be particularly desirable.

Just as planners and other types of personnel, evaluators and monitors would require a mix of analytical skills and competences in order to fulfil their roles and functions properly in the context of human competence development.

The principal objective of this article has been to rethink the notion of human resources not only in the sense of human beings as resources in the development process but also in the sense of mental and physical resources or competences available to human beings. Against the background of an analysis of internal and external problems relating to educational planning we have suggested a reinterpretation of the human element in the development process and reflected on the kinds of competence that human beings need in order effectively to cope with the multiple challenges of life. We have seen these challenges as relating not only to the world of work and productivity but also to the need for a whole range of life-related competences in the areas of health, family management, culture and recreation, political participation and citizenship.

It is the need for this broad range of competences that necessitates a new agenda in the development of 'human resources' in the senses referred to above. We have sketched this new agenda conceptually in a matrix of human competence development which brings together the competences needed and the various interventions required to develop and improve them.

As the third section of this article has shown, re-thinking educational policy along the lines of the notion of human competence has a number of important implications for educational planning and administration. The most important of those have to do with the need for a more integrated and concerted approach to planning so as to take into account the comprehensive nature of human competence development. This need for integration implies in turn a number of changes in administrative structures and procedures, in the training and orientation of personnel, and in the nature of the information base on which planners and administrators have to rely. In addition, shifting the perspective of educational policy more in the direction of issues of human competence gives a new meaning to the role of evaluation in educational planning and administration. Not only does evaluation become more important and, given the complexity of the task, more difficult, it also acquires a new set of criteria that are directly derived from the notion of human competence as developed earlier in this article. As a case in point, it becomes eminently important to assess the extent to which education systems are effectively able to transcend conventional and narrow meanings of 'outcome' to include a much wider and fuller range of competence, including those needed to function not only in the economic, but also in the cultural, political/civic, bio-medical, environmental, and recreational realms of human activity. ■

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Does company strategy have any lessons for educational planning?

Alain Bienaymé

During the 1960s and 1970s, educational planning generated great hopes as its techniques began to spread. There were several reasons for this enthusiasm. Economic analysis, borne along by the wave of growth in the West, was discovering the role of human capital and claimed to be able to gauge its contribution to national economic performance and its role in individual careers. School enrolments, the number of graduates and R&D expenditure became growth variables on a par with physical capital stock and labour (Denison, Malinvaud et al.). The developing countries saw educational planning as a means of asserting their national identity and allocating resources rationally in a form of investment which was held to be decisive for their future.

In the last fifteen years, enthusiasm has waned. This is certainly not because the qualifications of the working population are no longer considered a valuable asset: indeed, there has been a semantic shift from the concept of 'manpower' to that of 'brainpower' as the moving force behind growth today. But educational planning has not escaped the harmful effects of the world economic crisis, first, because of the impact of that crisis on budgetary restrictions and the employment of young people and, second, because of the shortcomings in both the methods and the overall approach of a certain kind of educational planning. In particular, the idea of gearing training programmes to the specific requirements of career outlets has proved illusory. But this new awareness is confusing to those anxious to have practical prescriptions.

Education cannot make progress in the dark, and one idea to have emerged recently is that the experience of companies known for the quality of their strategic thinking and the lasting successes resulting from it might provide inspiration for a renewal in the management of the education system. Can national education policies, faced with an environment which has become constricting, critical and demanding, find inspiration in the exercise in forecasting represented by strategic thinking and action and thus emerge from the cul-de-sac which a certain kind of planning has been unable to avoid?

In order to answer this question it is first necessary to show that strategy is not really at odds with planning, but, rather, that it alters its approach. The next step is to identify the challenges, the major difficulties confronting educators in their classrooms, schools and universities, and, indirectly, their administrators. Nothing, however, could be more dangerous than to cherish the fresh illusion that the stra-

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tegic approach adopted in industrial competition by a handful of companies offers a panacea. Just as the best plans have often provided an excuse for inactivity or conservatism in unforeseen situations, so there are particular problems associated with strategic thinking: naturally, it has its own methods, which are somewhat disconcerting for seekers of certainty, in that they set out hypotheses in a relatively informal manner. But the nub of the matter is the compatibility between the content of a strategic decision and the range of measures which school and university organizations feel able and willing to put into effect.

The virtue of a strategic plan resides, strictly speaking, in its educational value, which depends in turn on the extent to which it can make educators more efficient. The work that they are expected to perform will therefore depend on how emphasis is placed in the structures and tasks of the educational machine, and the system of rewards and recognition of abilities and skills.

The crisis in educational planning

It is generally held that the time-scale in industry is a long one. The time taken by production cycles in heavy investment sectors and the periods of transition to new technologies force companies to base their decisions on time-scales varying between two to five years and fifteen to twenty years. These times do not fit in with the political calendar, nor do they correspond to the daily, monthly or annual schedules for the routine operations of company life.

Educational cycles also fail to correspond to political cycles. The amount of time needed for an educational reform to take effect is greater than that available to the political authorities responsible for the reform. On average, thirteen years of schooling and six years at a university are needed to produce a high-level graduate. Even more time is needed to enable the new-style teachers, who are the product of educational reform, to demonstrate their talents to the full. Can a plan—a set of procedures and organizations enjoying relative administrative stability—cope with phenomena which the political authorities cannot assimilate or still less evaluate? That was once the belief, but people are now less certain. Why?

The weight of the past, the pressure of the establishment at national level and lack of funds greatly limit the scope for manoeuvre and the innovative capacity of education systems, even when such systems are planned.

Plans are now less successful than they used to be in promoting the role of education in society. The world is in turmoil, and its component societies are uneasy, unsettled and constantly bombarded by information from outside. The spread of education does not increase social cohesion in all cases: it often divides people intellectually along the lines of their areas of specialization and levels of skill. The increase in the total volume of knowledge produced by rapid scientific progress has raised the threshold of illiteracy and hence the number of illiterates. Frustration, violence and disintegration are therefore at work.

Educational plans cast in a conservative mould, with prescriptive procedures and a concern for exact figures, often fall victim to their own inability to come to grips with social reality. Exact figures are no substitute for an accurate diagnosis, as may be seen from the following two examples.

School education worldwide generally suffers from four deficiencies:

It is qualitatively unsuited to the task of preparing young people for adult life.

It lacks overall funding, in the light of population pressure or simply in the light of the need to improve teacher-pupil ratios.

It lacks redeployment capacity, owing to the specialization of teachers and equipment and also to hardened attitudes.

It is difficult to reconcile traditional values inherited from the past, the bedrock of the country's distinctive character, with the more universal, standardizing values introduced by the scientific and industrial revolutions of the Western world.

A similar upheaval is also taking place in the narrower, but rapidly expanding, context of

European higher education. For the first sixty years of this century, the university-based cultural model by and large meant that gifted young people knew that by undergoing the initiation rites of university, they could obtain much sought-after positions at the top of the social hierarchy, positions usually similar to those occupied by their fathers. A good university could be easily identified by a single and easily verifiable criterion, namely, academic excellence.

The attraction of these well-paid and prestigious careers and the high selectivity of school-leaving examinations matched the authoritarian style of business management and the Taylorian organization of factory work. In the days when most of the labour force worked 3,000 hours a year for forty to fifty years of their lives, the relationship between higher (i.e. non-compulsory) education and economic growth could be defined as follows: (a) higher education is a way of increasing the pool of qualified personnel; (b) more engineers, managers and qualified technicians help to boost the country's productivity gains; and (c) those gains are compatible with full employment so long as growth is harnessed to demand, spurred on by a general feeling of scarcity.

This pattern is now being challenged in the industrialized countries. A large proportion of the population in the West is now less affected by scarcity. The growth rate therefore depends much more on the effectiveness of marketing and technical innovation. Full employment is now merely a pipe-dream. Leisure time, whether voluntary or enforced, has greatly increased, particularly in Western Europe, and there is now a mass demand for the right to higher education arising from the desire to ward off unemployment, not by acquiring once-and-for-all qualifications to last a lifetime, but by claiming the right to keep up to date in a world awash with information, technological advances and knowledge. Singling out 'good' universities is much more difficult nowadays in our more democratic, less hierarchical societies, because of the explosion of knowledge, the professionalization of research and the desire to make higher education pay off. All universities must expect to be judged by a range of criteria. Consequently, management of education systems is becoming a much more complex affair.

The two examples quoted above, concerning the education of the majority of children in all countries and the teaching provided in European universities, illustrate the limitations of a planning technique concerned only with numbers of students and teachers, geographical breakdown and spread of subjects and the doling out of financial resources.

Add to this the fact that, in expanding, the education sector has lost its status: the teaching profession is no longer shrouded in mystery and prestige (Lesourne, 1988). The natural consequence of the increasing number of graduates is that they are to be found everywhere in the world of production and administration. Western companies are even coming to think of themselves as education systems. Teachers are no longer the only repositories of knowledge; they are the victims of their own success. For that reason, the remobilization of the teaching profession has now become a major concern.

How can the strategic approach give education policy a new lease of life?

Application of the strategic approach to education policy

The aim of this section is to pick out those general properties of strategic decisions which may offer guidance in the world of education, not in order to eliminate planning, but to change its approach.

As Ohmae (1982) (Director of the Business Consulting Group McKinsey in Tokyo) points out, a company with no competitors can afford to go ahead and plan its decisions. The concept of strategy, on the other hand, implies that the company feels challenged by competition. In industrial economies, competitors challenge each other in three ways, in a triangular pattern as in Figure 1, which shows that: (a) the market is segmented; (b) companies differ in terms of the quality of their products and services and of their cost-benefit ratio; and (c) companies sell value along with their products and services, which is appreciated by customers, not by suppliers.

There are many objections to the application of such a scheme to the education system. But at least it highlights some of the problems involved in keeping educational machinery running smoothly when it is insufficiently fired by the spirit of competition.

Indeed, in the absence of official competitors, companies in monopoly situations find it in their own interest to invent competitors so as to protect themselves from the dangers of complacency. Many over-confident monopolies have suddenly lost their privileges when by-passed by technical advances or changing habits.

Companies which fail to satisfy the latent demand within their reach are usurped by their competitors and threatened with the desertion of their customers. Similarly, the private sector is energetically involved in schooling and vocational education, and schools are not immune from a falling-off of a portion of their clientele (IIEP, 1988). Schools have no absolute right to a monopoly on education. Does anyone need reminding that in the West, for example, mothers attended to early childhood education long before schools took over that task?

It may, of course, be objected that a national education system is an expression of political choices stemming from the desire to draw a radical distinction between schools and businesses. But the educational budget of some companies is more impressive than that of certain prestigious institutions: the education budget of ATT is more than three times that of MIT. Moreover, in the United States, the business sector allocates for further training more than two-thirds of the national resources spent on funding universities proper (offering four or more years of study). Part of this expenditure is intended simply to make good the gaps in basic schooling, particularly in the case of recent immigrants (Eurich, 1985).

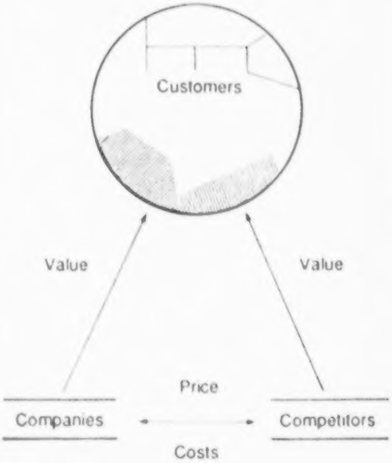

FIG. 1. Competition in industrial economics.

N.B. The market is segmented; companies differ in terms of the quality of their products and services as well as in terms of their cost-benefit ratio; companies sell value along with products whose services are appreciated by the customers, not by the suppliers.

Moreover, there is a need to review the monolithic nature of the state education system. The uniform nature of the regulations imposed on a whole population in the name of equality leads either to resistance to change or abrupt general reforms. Uniformity and routine are spatial and temporal expressions of the same lack of strategic thinking. When the state seeks to escape from the deadlock and from academic failure by imposing a radical and comprehensive overhaul of the system, it usually encounters inertia and a general lack of understanding.

The strategic thinking at work in the best companies tries to picture the institution's future in the light of the real or potential competition to which it is exposed. Schools too often see themselves as having a captive clientele.

At the level of the education system as a whole, strategic thinking approaches the future in a different way from straightforward planning.

To begin with, the strategic thinker tries to understand, to 'anticipate the present', using monitoring devices drawn from a large number of disciplines and technical branches. The statistics representing the past on which plans are usually based are in fact too conservative, and averages tend to conceal new phenomena which will later command attention. However, it is essential to identify 'sunrise developments' (Massé, 1965) and 'weak signals' (Ansoff, 1975) in order to influence decision-making in good time.

A strategic approach also readily accepts the fact that the future is uncertain and that no technique can establish conclusively the consequences of future decisions. The strategic approach is more concerned with mapping out major areas of uncertainty, introducing coherent sets of hypotheses, constructing responses on the basis of these scenarios and identifying in every case the steps which, whatever the circumstances, must be taken to keep moving towards the main objectives.

What is the relevance of these strategic analysis concepts to the management of the education system? Their message is that, going beyond the false certainties of rational calculation, resource allocation and extrapolation from enrolments, it is essential to determine what tasks education should perform and to ensure their relevance. Costs cannot, of course, be disregarded, but efforts to reduce (at any price!) the conspicuous costs of a system, namely, those recorded in the accounts, do not necessarily make the system work with maximum efficiency. If we drive with our eyes glued to the dashboard, we are unlikely to reach our destination. Low cost is not primarily what makes good education policy, even if wastage must be eliminated. It must be defined first and foremost in terms of its purpose, the quality of the services to be provided, and only then in terms of the best possible price. The unexamined extrapolations that creep into even the most complex planning models no more guarantee the planners' credibility than a straight advance through a minefield guarantees the safety of a foot soldier. All this goes to show that the strategic approach predisposes the organizations drawing inspiration from it to adopt a more flexible response to both the threats and the opportunities thrown up by the changes in society.

It may, of course, be objected that education should be a part of the sacrosanct core of essential duties that all countries must perform even if they are going through a crisis. Unfortunately, this assertion is too general and too categorical to be taken literally. Fluctuations in the gross domestic product, the burden of a country's foreign debt, changes in its export income, the size of the national debt and the requirements for survival in the event of famine are just some of the variables which may curb the resources allocated to education. How far can the continuity required by the education system be reconciled with the necessity to keep expenditure consistent with available resources? Some educational activities are indeed inviolable, but there is also a grey area that is subject to review. The quantity of real resources available for each pupil or student varies too much from one country to another, from one educational level to another and from one decade to another, for governments not to tackle this question openly. It is better to discuss it than to rely on a blind power struggle or to make proportional resource cuts when the country has to weather a financial crisis.

Lastly, education needs to be changed in two complementary ways as a result of the proliferation of the new occupations and skills generated by development and the ongoing industrial revolution. Hitherto, education systems have simply juxtaposed 'vertical' courses of education, that is, courses organized and compartmentalized solely on the basis of assimilating knowledge or techniques for vocational purposes. These courses are not usually intended for the same groups of people. Training therefore becomes the surest way of creating a divided society. In future, those starting work earlier should receive more general education, even if industrial training has to take over where schools leave off; conversely, literary and scientific courses should foster greater awareness of world developments, careers and the values of communication.

Lastly, the content of all strategic decisions in business may be reduced to one of the five categories summarized in Table 1.

Common to all these decisions, which are very

TABLE 1. Strategic decisions applicable to education

What are we building?	Investment, new recognized courses of study, recruitment of teachers
What shall we keep?	Maintenance, operating resources, quality control
What shall we sell?	Abolition of courses, closure of establishments, recycling human resources
What shall we buy?	Documentation, software, etc.
Who are our allies?	Local and regional authorities, educational institutions both upstream and downstream, business enterprises, international co-operation

familiar to companies, is the fact that they involve a lasting future commitment. When they have been duly anticipated and thought out, and have not been imposed by the force of unforeseen circumstances, they give companies a certain amount of freedom to manoeuvre. Should not the officials responsible for education policy perhaps take a leaf out of this book when the need is felt to reorganize school mapping or to rejuvenate syllabuses and courses?

The state education system remains a potential prey to the dangers mentioned, while a subtle erosion of its funds may weaken its ability to act. For example, the different groups of teachers linked by discipline or by status all exert pressure in defence of their group interests. Torn between the claims of one side and the inertia of the other, the political authorities respond by taking their own measures, namely political trade-offs. The compromises made often favour new regulations or statutory reforms without always solving the underlying problems. Political pragmatism is seldom the kind needed in the educational field.

Strategy cannot replace planning. A study backed up by figures must be carried out to confirm that decisions, some of which are simultaneous and others staggered, are in harmony. A plan without a strategy runs the risk of resting on inaccurate and incomplete foundations; a strategy without a plan runs the risk of expressing nothing but dreams and idle talk (Quarre, 1988). Clear-sightedness and flexibility are the qualities that give plans their proper rigour.

The strategic problems of education

Three categories may be distinguished: ends, means and management.

THE ENDS OF EDUCATION

Throughout the world—in the United States, as a large number of reports have revealed in recent years, in Europe and also in the Third World—the content and organization of education are running into tremendous difficulties. These arise not only from the evolving nature of transmitted knowledge, but also from the complexity of relations between knowledge and economic and social development.

New knowledge has been accumulating and dividing at an unprecedented rate since the Second World War. This has had several consequences: syllabuses have become weightier and courses longer; there is uncertainty about the most appropriate pace at which new information should be introduced (for example, the rather less than satisfactory results of introducing the new mathematics, new methods of teaching history, 'look-and-tell' reading methods or computer science for all); the need to sacrifice part of the heritage of knowledge previously handed down; the rise of a new type of illiteracy resulting from the raising of the minimum standard of knowledge that young people require to find their place in society and to lead independent lives.

Time is limited, however; neither the extension of life expectancy nor the increase in leisure time is sufficient to offset the restricted amount of time that individuals can spend on making progress in their special subjects, keeping up with the changing pattern of daily life in society and cultivating their minds in a 'disinterested' way.

Moreover, relations between education and society have also developed considerably since the time when society's progress through education was held up as the ideal. The price to be paid for the increase of knowledge is a division of labour which accentuates specialization and builds walls of mutual incomprehension in societies suffering from a lack of communication. In the industrialized countries, overturned as they have been by a scientific revolution whose impact is tremendous, since it affects people's thinking, a superficial study shows how information and knowledge have found their way into the smallest workings of companies, machines and products. Individuals, however, in no position to master all this information find themselves obliged to put their trust in second- or third-hand knowledge. What a contrast to the intimate, but empirical, knowledge of peasants in the African savannah or on the plains of Thailand, who have first-hand, personal knowledge of every aspect of their working environment! Industrial civilization, on the other hand, compels individuals to believe much more than to know, and to bridge the gaps in their knowledge by trusting in collective beliefs which they find plausible rather than in observations whose meaning escapes them. In such circumstances, those with a little more knowledge than others will be at an advantage, unless and until the expert systems of artificial intelligence steal that advantage (Sowell, 1980; Woo, 1984).

Relations between education and society are now less harmonious because progress in knowledge and technology devalues the cultural heritage and accentuates the generation gap. Young people are no longer trained for the same occupations as their parents. Schools, which formerly sprang from the initiative of parents, today separate young people from their elders. The part of the emotional and financial heritage that used to be handed down from parents to children in the shape of an occupation is thus lost. The school is therefore a factor of crisis and a key element in the 'scandal of development' (Austruy, 1965).

In addition, schools and universities produce so many graduates today that they are widely distributed throughout the working population. In France for example, some 12 per cent of the working population has a higher education diploma. The ivory-tower university and the school, which used to have a monopoly on knowledge or to be its uncontested leaders, now have to deal with a far more highly educated, and consequently more critical, society (Benda, 1927, Bienaymé, 1986).

As a result, there is much controversy, especially on the theme of educational objectivity or the moral values which, through the specific characteristics of the subjects taught, should be handed down to young people (Martin et al., 1981).

The essence of strategy consists in turning threats into problems, and problems into opportunities for action (Ohmae, 1982). It is true that the demand for education is experiencing a crisis, as IIEP (1988), Lesourne (1988) and others point out. In some cases, that crisis questions the pace at which school and university enrolments are progressing. The proportion of adult students with specific requirements is on the increase. The very transition from an élitist type of higher education to mass education and then to almost universal education calls for a much closer analysis of what education is required to do, rather than imposing on everyone standard curricula leading to guaranteed national degrees.

The strength of the links which is assumed (and somewhat overrated) between knowledge actually acquired, qualifications held and the abilities that employers expect of young recruits tends to encourage training in the narrowest of professional branches, to the detriment of other forms of education that rapidly fall out of favour because they are deemed classical and traditional.

Educators have not yet succeeded in organizing their dialogue with society, though that dialogue seems to have lost its ideological virulence in recent years. The problem is how to prepare young people for working life as adults without sacrificing general education. It is more a matter of attitudes than of subject-matter: a specialist in medieval history, for example, can use his specialized knowledge, going beyond pure erudition, to make today's world easier to understand. In management disciplines, there is a great demand for finance, marketing, auditing and accounting techniques, which, unless corrective measures are taken, will oust basic subjects like economics altogether. It is up to economists to make the world understand that their discipline has the great virtue of stressing human solidarity, showing how trade brings benefits and is a messenger of peace, and preparing students intellectually for an extraordinary variety of activities and professions.

FUNDS FOR EDUCATION

The crisis in educational objectives is compounded by a funding crisis, which is due to a combination of factors.

One is the difficulty in fully appreciating the cost of education. There are many different reasons for this, the relative importance of which varies from country to country. Coombs (1985) has drawn attention to the disparity in unit costs per student according to the level of education. These differences in turn vary considerably from one country to another (Eicher, 1987). Is it widely known, for example, that in France the average cost of a university student is slightly lower than that of a secondary-school pupil, whereas elsewhere it is, sometimes disportionately, greater?

Deadlock situations prevent resources from being redeployed. For instance, the human cost of experiments in renovating the first two university levels in France, affecting half of all students in the past two years, has proved high in comparison with the results achieved. Again, the closing down of a school in an area with a dwindling population will meet with strong resistance and the central authority's powers of coercion are restricted. Moreover, when for reasons of economy the state cuts back on teacher recruitment, the number of teachers drops, but the steady ageing of the teaching profession pushes up the overall salary bill (Bienaymé, 1987).

A more recent phenomenon to have emerged in some countries is that, because of the dwindling prestige and purchasing power of the members of what is now a less glamorous profession, there are fewer and fewer people wishing to take up teaching as a career, especially in the subject areas most sought after in the working world. It will not be possible to deal with this recruitment crisis without further financial sacrifices for education, or perhaps by personalizing teachers' salaries.

Lastly, although it is theoretically simple enough to forecast trends in the number of enrolments in compulsory education, errors creep in as soon as the forecasting becomes more detailed, because it is more difficult to anticipate the drop-out rate, the distribution of pupils according to option and their geographical location.

Other categories of public expenditure compete with spending on education. This applies to defence spending, which is contingent on the vicissitudes of state security. It also applies, albeit for different reasons, to welfare expenditure, which is on the increase due to the expansion of benefits by virtue of acquired rights and also unforeseen variations in expenditure-generating factors such as illness, unemployment, poverty and pensions. Some international comparative studies (Wilenski, 1975) on Western countries have even shown that health spending is negatively correlated with educational expenditure in terms of their relative share of the GDP. The more people spend on health, the less they spend on education.

The situation in many education systems today is, therefore, one of crisis as regards both the goals pursued and the financing of education, while the overall climate is itself less favourable than in the 1960s.

One of the lessons to be learnt from an observation of business strategy is that the ingredients of success that prevailed during the boom years are no longer a guarantee of success today. However, before discussing the sweeping changes dictated by 'crisis management', we should turn our attention to some of the management constraints in the public education system.

THE MANAGEMENT OF EDUCATION

Typically, except in countries with a federal structure (usually very large countries), state management of education features bureaucratic rules, a top-down flow of information, compartmentalization of responsibility and slowness to react to far-reaching changes in society. The industrial groups that have copied this model are handicapped by such characteristics whenever markets or technology become turbulent or hostile (Emery and Trist, 1965; Lawrence and Lorsch, 1967; Bienaymé, 1982).

Oddly enough, at a time when business enterprises have gained by moving away from Fordism and Taylorism towards other forms of labour organization, public education systems are persisting in the error of centralism and across-the-board decisions. These decisions overrate the advantages to be gained from economies of scale, and their supporters over-rate the equalities they think should be preserved. Finally, decision-making is too far removed from the actual situation at hand. For instance, there is something wrong with a proposal that an identical allocation of funds for running expenses should be granted to two establishments which, though similar in all other respects, have to operate under different climatic conditions, on the grounds that equality must prevail.

At a time when education has come under scrutiny and its relations with society are changing, planning offers inadequate technical solutions. Planners have gradually become slaves to ritual and routine, sinking eventually into a rut. Educational planners are not the only ones to have run into trouble—the same is true of those responsible for centralized economic planning, who underestimate environmental changes, the inertia of social groups and the workings of international competition. In the circumstances, and taking due account of the differences between countries and individual cases, is it possible to come up with any broad lines of action that may alter the course of education policies—and hopefully improve their results?

Suggested strategic guidelines

Contemporary thinking on educational policy (for example, Cerych and Sabatier, 1986; Debeauvais, n.d.; Husén, 1988) focuses on two questions: How, and to what extent, can changes be effected without reform? Under what conditions can a reform actually bring about the desired changes? Generally, there are two types of guidelines.

One series is provided by educational policy specialists with detailed practical knowledge of the field. One example is Husén (1988), who while refuting the view that a single paradigm could be universally valid, nevertheless spells out a handful of general rules which, if neglected, will lead reformers to certain failure. According to him:

A properly designed educational reform requires a great deal of time—time measured, not in years, but in five-year spans or even decades.

To be carried through in full, it requires the active involvement of educators right from the outset. All too often, educators feel left out of the decision-making process which nevertheless depends heavily on them for implementation.

No educational reform can be content to set objectives without identifying the resources to be harnessed for this purpose and the sacrifices that it is going to entail.

Any educational reform needs to be designed with a view to changes affecting other sectors of society. Educational reforms cannot be used as a substitute for other reforms in society: school and the university cannot advance democracy single-handed, or improve the general climate of industrial relations.

A reform can only succeed and take shape after a long experimental phase and after the lessons to be drawn from that phase have been assimilated. Consequently, the ambitions and rapidity of the changes sought through educational reforms are not in themselves a guarantee of success. The strategic outlook demands greater humility, more realism, and more perseverance on our part. Another series of replies has been formulated in recent work on business strategy. Lentz and Lyles (1986) stress the need to mobilize everyone concerned by taking problems of implementation into consideration when formulating tasks, goals, objectives and timetables. In line with this thinking, we would suggest three guidelines.

The first entails setting the quality of education as the first priority for action. The strategist's cast of mind seeks to turn threats into concrete problems capable of responding to operational solutions. Whereas the planner is too readily reassured by thinking in terms of aggregates and the statistical averages contained in his model and remains the prisoner of norms and ratios, the strategist seeks to extricate himself as neatly as possible if he senses that the situation is becoming dangerous. When a company runs into serious difficulties, which may have been occasioned by an unfortunate combination of circumstances, it needs to distinguish the symptoms from the causes of these difficulties. The strategist's characteristic approach is to seek ways to turn his experienced difficulties into a concrete problem for which practical solutions may reasonably be devised (Ohmae, 1982). The problem here is less to try to calculate the optimal solution than to devise more satisfactory complementary methods of action. This is a question of observation, relevant information and common sense.

Absenteeism among school pupils, uncompleted studies, rejection rates and repeater rates among students, the crisis of motivation and staff recruitment in education are commonly cited indicators of the difficulties encountered, even if their acuteness varies from one establishment to another.

A fairly new theme is now emerging, both in the literature on business competitiveness and in studies on education. This is the theme of quality. We are now discovering that ambitious goals of democratizing society and promoting social justice cannot be achieved overnight simply by increasing the number of people in school. The reasons are: (a) the goal is beyond the reach of educators; and (b) educators ought to give practical expression to these goals in their own actions, by improving the quality of their teaching, of their courses and of their teaching methods.

Education is not merely a matter of cohorts, flows and stocks. Well-run companies also categorize their customers, segment their market into groups of customers having more or less homogeneous behaviour patterns, and adapt their products to the specific tastes in evidence in each segment. Product differentiation, selective action and operational flexibility are some of the secrets of successful businesses. Quality is not just a question of seeking excellence in terms of a single scale of performance or a single criterion (e.g. academic erudition). Quality is also defined by the extent to which products meet customers' expectations: safeguarding academic excellence is one indispensable element in a good education policy. But there is another consideration too, namely, the relevance of activities in terms of curricula, teaching methods, and the type of evaluation of knowledge and abilities. This relevance needs to be assessed in the light of the expectations of the public with whom educators have to deal.

Lastly, in the strategist's own specific heuristic approach, the educator must develop his ability to listen to his clients (parents, schoolchildren, professional circles, regional bodies, etc.). Teachers who realize how often their image is dented will win back the respect of their fellow citizens by their willingness to step outside the framework of their speciality in order to communicate and exchange concrete proposals with their natural partners in the field.

Qualitative progress in education calls for greater involvement on the part of the key players, who happen to be in school classrooms and university lecture theatres. This can be achieved by means of genuine decentralization of power, which means giving school heads and university vice-chancellors or presidents greater control over the utilization and allocation of resources. Decentralization should not be a subterfuge allowing the state to divest itself of responsibilities that the school is incapable of discharging itself for lack of the necessary resources.

The resulting strategic autonomy ought to enable institutions to 'hug the terrain'. In strategically important areas, they will be expected to adapt 'proactively'. It will no longer be enough for them passively to apply the regulations. Intermediate bodies such as regional assemblies may be able to facilitate negotiations with the central administration and set in motion a genuine process of self-reform.

The decentralization of power to institution level will entail new obligations for their heads. A recent survey of industrial corporations has shown that their success depends on their style of management and command. Their managers submit to a clear and universally accepted code of ethics in their decision-making, and they communicate the message defining corporate policy to their entire staff. Skilful exercise of power entails observance of a set of rules which preclude the risks of arbitrary decisions (De Woot and Desclees de Maredsous, 1984).

According to the headmaster of the American Community School of Abu Dhabi (Ambrose, 1988), some of the criteria of excellence defined by Peters and Waterman (1982) apply also to the running of a school. For example, the taste for action, close relations with pupils and parents, the spirit of innovation and enterprise, the search for greater productivity through personnel motivation, clear awareness of the values and goals of the establishment, and so on.

Closer links between establishments and their local environment, productive activities, elected officials, etc., should make it easier to diversify sources of financing. This is the best way to lighten the burden of central government financial tutelage and interest potential partners from other sections of society in the smooth workings of scholastic institutions.

Decentralization should, in the last analysis, make it possible to appraise institutions in terms of the quality of their strategy, in other words, their capacity to define their identity and their long-term goals. Tnis presupposes that the following conditions are met: (a) a leadership capable of listening and of creating appropriate conditions around a collective idea inspired by a vision of the future; (b) a developed and ongoing system of internal and external communication; and (c) regular evaluation of the scientific and strategic content of education.

Finally, the decentralization programme means that administrators will require training in strategic thinking. The teaching of planning may have the virtue of teaching people a better understanding of the dynamics of the establishment, with 'planning to learn' thus taking precedence over 'learning to plan'.

The role of the state raises one last question: by devolving broad responsibilities upon institutions, steering the education system as a whole will become a far more delicate and complex task, particularly for the state, which is the supreme guardian of the national interest (general cultural, social solidarity, etc.). Minimal standards will thus have to be laid down in the form of common core curricula of general knowledge. Steps also need to be taken to ensure that certain institutions do not systematically skim off the best pupils and students, leaving the less tractable categories to fend for themselves, in the name of selection.

Selection can be reconciled with democracy in education by diversifying streams, curricula and institutions. It is up to the state to announce its priorities—notably through its pay policy for teachers—even if regional or local communities may have to contribute in order to make some adjustments.

It is also up to the state to plan for staff training and recruitment, avoiding the excesses of regional nepotism on the one hand, and the seesaw trends on the other, which are so prejudicial to teachers' morale due to resulting unevenness in their careers. Lastly, the dynamics of self-reform need to be guided, advised and inspired with the aid of procedures for self-evaluation and for evaluation by bodies of acknowledged impartiality and competence.

To conclude, when educational planning is conceived as an essentially quantitative exercise, and when it remains in the hands of specialists accustomed to thinking in nationwide terms, or in terms of broad masses, its limitations become apparent. The planning expert's advice to the prince is still useful. But institutions will view the resulting plans as too abstract, too restrictive or too far-fetched for the person on the spot. That is why plans are destined to serve as adjuncts to the strategic function with which establishments ought to be invested.

Comparisons of companies enjoying long-term prosperity with ones in difficulty leads to the conclusion that the search for profit is less decisive than the quality of their managers' strategic outlook. Obviously a firm needs to make profits, just as a living organism needs air; but the goal of the living organism is not to store up as much air as possible. Similarly, the best way to bring about change in educational institutions is to give responsibility for defining their goals in accordance with the resources that they can reasonably hope for, to people with a sense of initiative rather than to those whose prime concern is to administer the application of regulations. Educating the young is about guiding them firmly towards autonomy. It is up to the central administrations to take this message to heart by firmly guiding schools and universities to a condition of autonomy.

A well-designed educational reform plan can help a country to avoid costly collective mistakes. But it is not enough in itself to define a commonly agreed order of social realities (priorities?), nor to convince educators to work for its fulfilment. A society's future belongs neither to educators alone nor to planners. All the different sections of society, adult communities, the political authorities, the influence of local authorities—all ought to have a say in the matter along the way and, in the process, help educators to discover the prospects for progress.

If, as Rivarol said, 'Kings will go on losing their heads for as long as they wear their crowns over their eyes instead of over their brows', then planning is neither the only, nor even the most important, means of putting the crown back on the brows: strategy is less an instrument or a set of technical recipes, than a state of mind. ■

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Does education need strategic piloting?

Sylvain Lourié

Why the question?

By looking at the substance of the radical changes which have affected educational demand and supply this article attempts to understand why the very foundations of educational planning must be designed and constructed from a new point of view.

CHANGING DEMAND

In the past twenty years, the nature of the educational phenomenon as a reflection of 'social demand' has changed radically. This is particularly obvious in three areas.

First, there is an increasingly clear-cut contradiction between education seen as a strictly individual act, in the sense ascribed to it by Piaget in terms of genetic epistemology, and the standardized, bureaucratic, collective response which states have now been providing for nearly a century and a half.

Second, the demand by individuals (and not just schools) for education reflects aspirations of various kinds, which may be social and civic (inclusion of marginal or minority population groups in the mainstream of national society), economic (ongoing adaptation to changing employment structures), or cultural or ethical (creative participation within a society, which preserves its cultural and historical roots while at the same time keeping up with the race for scientific and technological development).

Third, from the standpoint of the state, respect for, and in some cases even the strengthening of, the traditional role of the school as an instrument of national identity conflict with major international trends which shape universal patterns and structures of thinking, behaviour and even values.

One of the consequences of this diversity of demand is that the clientele for education, that is, those demanding an 'educational product', is no longer restricted to the children and young people for whom school was originally designed and has since developed. Today, it includes not only the children and young people rejected by the education system but also adults of all ages from every social class. Lifelong education is thus a very real demand. As a result, this new clientele is much more heterogeneous than before. A time factor comes into play here (education for all at any time of life) and also a space factor (since there is a tendency for education to compress space by attempting to attenuate differences and regional or international antagonisms).

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Prospects, Vol. XIX, No. 2, 1989

CHANGING SUPPLY

Five factors seem to have helped to change the nature of educational supply, which has hitherto been confined mainly to formal school systems (schools *per se*), designed and regulated by the state.

The state monopoly of education is being seriously eroded. For one thing, the mistakes or even dangers resulting from a uniform bureaucratic response to different individual needs have gradually come to light and been noted. For another, the time frame of national political life (the electoral process, a government's expectations, etc.) does not coincide with that of the educational process, especially when the latter is no longer confined to the period of education at school, which itself is very much longer than any political lifespan. In short, disregarding the question of resources, the state is not really in a position to offer a personal education service and provide all citizens with the opportunity of entering or leaving a variety of educational and training systems at different times throughout their lives.

Any change in educational provision depends on the tension between the strands of the relevant 'social fabric'. In other words, as intermediary bodies and group structures have gradually assumed greater weight and responsibility within the social order, it may be said that the threads of the social fabric have become more tightly woven, since a greater number of needs are expressed by a greater number of social actors. For example, in a highly structured country, if the education provided by the school system needed to be radically altered, it is highly unlikely that such a change would actually come about, for it would meet with resistance from professional groups and unions which see their social role not only as a means (to serve education and society) but as an end (to defend their own interests). In the developing countries since decolonization, and also in the industrialized countries, history has shown that the fabric becomes progressively more closely knit with the gradual development of a more participatory—or, to put it more simply, more democratic—national society. Any change in educational provision becomes relatively more difficult to bring about as social structures and actors become more effective in defending the established order.

The productive private sector is playing an increasing part in education and has come up with alternatives to formal education systems. In the United States, for instance, the outlay on higher education by private business enterprises ($40,000 million annually) equals the amount spent by all higher private or public educational establishments concerned solely with providing such education.

At a time of economic crisis, where there is no choice but to adopt a policy of austerity in public spending, the funds needed to cover social-sector spending (health, education, social security, housing, etc.) are increasingly channelled towards the productive sectors and national defence; of late, we have even witnessed competition within the social sector between social security and health needs, and educational requirements.

The technological explosion has intensified the emergence of an alternative to the conventional state education system in the shape of distance education networks, computerized information and communication systems, satellite communication across frontiers, and so on, a combination of which makes possible personalized teaching based on self-learning, as well as teaching systems organized outside traditional systems.

These changes in educational supply have given rise to a variety of structures and actors that no longer come under the sole authority of the state, indeed far from it; and also to a variety of educational 'products'. Generally speaking, what we have here are not uniform, standardized educational materials and teaching methods, but specific responses to demands from a variety of population categories whose social, cultural and economic requirements may frequently differ.

RADICAL CHANGES IN THE BASIC PREMISES OF PLANNING

In 1982, in a publication entitled *Educational Planning in the Context of Current Development Problems*, the International Institute for Educational Planning (IIEP) noted that there were in fact two different kinds of planning:

> [one] is effectively integrated into an overall political project, duly accompanied by the necessary means of direction, implementation and control; the other, whose connection with development planning is partially theoretical, nevertheless tends to define itself as a whole in relation to the ends of the contemporary world as it perceives it. On the one hand we have a system, on the other an 'attitude'.

Today, we find that planning is no longer based on the foundations which in the early days enabled it to play the role of direction, implementation and control. Instead, we are witnessing the disappearance of the certainties which made it possible to identify factors that were stable and relatively easy to extrapolate. Thus, for instance, starting out from a demand for school places for a given age-group and following a sequence that was invariable throughout the system, from one level to the next, it used to be possible to determine the budgetary resources needed for school 'flows' reflecting a relatively undisputed demand matching the cost of what was practically a single source of supply.

But as the nature and size of supply and demand evolved, it followed quite naturally that the role of national planning, which might be centralized or non-centralized, directive or merely indicative, but was intended to be decisive for conventional school education, was in turn radically altered in both meaning and scope.

We have raised the question chosen as the title for this article (Does education need strategic piloting?) because it suggests a new approach (a comprehensive one, of course, since we are talking about a policy or strategy on the scale of a whole society) which would be neither directive nor even indicative. The fact is that, in a context in which all the components of an overall policy are mobile, the only realistic educational strategies are differentiated strategies, no longer rooted as before in theory, which is planning-oriented, systematic, predictable and linear, but in a precise knowledge of the factors which are vectors of change and are characteristic of any society studied in depth. The range of these strategies is described below.

Identifiable trends

If, therefore, educational planning, like any other prospective process, must no longer be based as in the past on theoretical, analytical and deductive models, but on a knowledge of an existing situation, it is essential to pinpoint the factors that can be identified today and foreshadow the shape of education in the future. We shall endeavour to single out two groups of factors, the first relating mainly to the contemporary socio-cultural and political factors which already outline the shape of things to come, and the second to 'technical' factors which also give an idea of what the education of tomorrow might be.

SOCIO-CULTURAL AND POLITICAL FACTORS

There appears to be a growing demand for collective participation, not only in the industrialized countries but also in the developing countries, however far advanced they are on the road to industrialization. This observation will be the starting-point for looking on the one hand at trends regarding the attitude to the power of the state, and on the other the trends to be found in industry and the 'consumers' of education.

The role of the state

Soviet experience seems to demonstrate that inflexible planning decreed by the state, itself seen as the sole source of authority and action, had reached its limits during the 1980s. Whether measured in terms of economic growth, employment policy, the mobilization of the resources needed to finance social needs or innovations reflecting the changing requirements of the economy and society, the state's ability to release the creative forces of a community eventually reaches limits which are clearly perceived by the public at large.

An example of this in the educational sphere has been the over-production of graduates in the Soviet Union as a result of the theoretical vision of a monolithic, centralized society, embodied by a state unable to adjust to the fluctuating demands of the individuals and groups for which it is responsible. In Latin America, the organization of society is heterogeneous, due to a lack of co-ordination between the social actors, political forces and the state itself. This situation may give rise either to a considerable weakening of the actors or to a disorganized expansion of the state, which gives the impression of resorting to a wide variety of different approaches according to the sectors or mechanisms it is meant to be controlling.

These two examples suggest that as historically structured, the state, whose original purpose was to ensure a balance of social forces while acting as custodian of the nation's independence and sovereignty, has become an end in itself. Abandoning its instrumental and supportive role, it has become a be-all and end-all, first for its own public servants and ultimately for the population as a whole. By way of illustration, some school and academic systems respond less to the demands of the community than to those of the 'servants' of the state, who may be politicians or government officials and who exert a decisive influence when it comes to determining the technical and social objectives, means and functions of these systems. From being originally a service to society, education has become an end in itself for the planners, teachers, administrators and politicians who are responsible for it on behalf of the state. The state is supposed to be acting on behalf of the community, which in fact is at no stage associated with the decisions concerning it.

Some people believe that the response to this all-powerful and to some extent irresponsible state authority lies in some form of decentralization. With the opening up of new prospects in the Soviet Union, for instance, a move is envisaged towards 'root-and-branch' decentralization to stimulate individual initiative and so involve everyone in the economic process. In education, the aim henceforth is to involve users in any decision-making concerning them. Thus the democratization of the management of educational institutions and establishments should entail student participation. In France, where the problem is of a different order, decentralized state structures are taking on an increasing share of responsibility for management.

But does this response to the all-powerful state in the form of a policy of decentralization giving local communities and users a direct say in fundamental choices really provide a universally applicable solution to the problem? It appears that it is not necessarily possible, particularly in Latin America, to establish a correlation between a high degree of decentralization and the democratization of society. In many Latin American countries it has been the centralizing function of the state that has enabled it to guarantee independence, development and opposition to other more particularist forces such as, for example, the Church.

Conversely, decentralization does not necessarily provide a 'relevant' response to pupils' and students' needs, or greater economic efficiency, or more appropriate teaching methods. In fact, would-be decentralization might well do the reverse and give rise to action by certain forces at the local level to the detriment of the interests of the majority. Since the financial autonomy of local authorities (provinces or municipalities) is more often than not an illusion, what happens is that under the banner of decentralization, the private sector takes over the school system without a minimum guarantee of social justice, because in some cases decentralization may actually accentuate social and political control. Under the guise of transferring responsibility, it is in fact the problems that are delegated, without the necessary resources to solve them.

It cannot therefore be claimed that the answer to the dominating role of the state is necessarily to be found in a transfer of authority to intermediate or local structures, in cases where the local and national set-up does not provide the guarantees of social justice and cultural development that are needed if decentralization is to become an instrument of democratization and participation. It is consequently thought by some that decentralization, seen in Napoleonic terms as a form of deconcentration of the central authority, or in more subtle terms as a genuine transfer of authority, cannot be advocated as a universal panacea. The role of the state must therefore be viewed as a fluid one, passing through different historical stages according to the extent to which a nation and its society are organized. In some cases, state power might be counteracted at the central level by the establishment of representative structures which also operate on a nationwide scale (trade unions, students' associations, consumers' organizations, etc.), in preference to contemplating some authority at the subsidiary territorial echelons which might conceivably take over certain public activities such as education.

It is therefore not possible to propose an arbitrary, universal model for responsibility- and burden-sharing between the state and local authorities according to which the state alone would be entrusted with the power to establish national standards or rules and to ensure their application while leaving the local authorities to control management methods. It would be more realistic to acknowledge that the establishment of national rules, which is part of the state's legitimizing role, and the assessment of results (nationwide examinations), which is one of the state's prerogatives, can probably not be delegated to intermediate authorities. By contrast, the adaptation of educational programmes and methods, and even local or intermediate structures will depend on how well equipped the local social and political structures are to take on such new responsibilities. In some cases, it is obvious that intermediate educational structures are perfectly capable of doing so, whereas in others, only the central organization will be able to give the regions and districts the necessary dynamism to establish a common system throughout the country. In India, for instance, although there are locally debated issues which go right up to the central authorities, it is the latter which formulate the policies approved by Parliament and which lay down a programme of action. This programme does involve a measure of structured decentralization and participation in the form of consultative bodies at all levels, but these do not have any direct authority, such authority remaining centrally in the hands of the state.

The diversified educational field and those involved in it

Alongside the state and its structures, which may or may not adapt to the requirements of collective participation, a 'diversified educational field' has become increasingly important in recent years. This covers, in addition to school systems directly administered or controlled by the central state authority or its decentralized structures, a wide variety of educational and training programmes which are very often set up, managed and controlled by employers in the production and service sectors. Both in the countries traditionally thought of as industrialized and in some newly industrialized countries, we find an increasing part played by firms in providing basic training as well as technical and even cultural vocational retraining for their employees. This action on the part of productive sectors has already given rise to networks not only for the exchange of information but also for the mutual recognition of certificates between firms providing training and retraining programmes. These 'parallel networks' of specialized training and education are often based on the standards of general knowledge provided by the formal education system itself, and partly also on the general qualifications acquired within the formal system.

In addition to the direct role of firms, which may provide specific training for their own staff or even offer services to the community at large, there has been the rapid development of distance education systems. These are intended not only for students in higher education but also for those in secondary education, and today provide an opportunity for people living in remote areas and also those who are not of the usual school-going age to join in information, cultural and even vocational training programmes. Systems of recognition and certification have been introduced, enabling self-learning to be acknowledged as a legitimate and universal method of education and training. Very often, the certificates awarded are not a state initiative, but meet the criteria of a particular firm, sector or occupational branch.

This 'diversified field' is not necessarily made up of converging forces. While business enterprises are playing an increasing part in education and training, this is primarily for purposes of productivity and efficiency, whereas many distance-education and self-teaching programmes respond more to criteria of 'relevance' or of personal satisfaction which, though it is in some cases rewarded by a certificate, may be solely a response to individual aspirations. This type of education is therefore diversified, not only as regards available means and tools, but also as regards the aims sought.

There is also a rising tide which invites closer scrutiny. This represents the growing influence of the 'consumers' of education over the choice of the 'products' offered them, either by official institutions or through private or special programmes. Whereas administrative reforms nearly always envisage student or parent participation on school committees or various advisory bodies, the functioning of distance education systems reflects the dynamics of a free-market economy. For instance, the Indira Gandhi Open University in India conducts thorough and costly market research before deciding on the 'product' to be put on sale. The reason for this is that, as the programmes offered by distance-education systems are fee-paying, they must meet precise requirements in respect of personal satisfaction or vocational training. The quality of the product will determine the market's response to it. Alongside these commercial systems, educational and training exchange and participation systems have grown up, prompted by purely personal considerations. These motivations have a considerable effect on the nature of the relationships and exchanges which shape educational and training programmes. It is likely that they herald the ultimate doom of education systems designed centrally and dictatorially for a public which has never been considered as a clientele but rather as raw material to be fashioned into a shape preconceived by those who prepare and produce official programmes.

Apart from these standing factors, which carry within them the seeds of change and are already to be found in the educational situation as it is today, there are others which affect decision-making and whose origin is to be sought in the progress or setbacks of the scientific and technological organization of contemporary societies rather than in the motivation of individuals or institutions. It is to this second category that we shall now turn our attention.

DECISION-MAKING FACTORS

As of now we can discern three trends which may modify, if they do not already do so, the role of education and, to an even greater extent, the forecasting of its development by means of concepts for new strategies. Our starting-point will be the impact of financial uncertainty on education policies, the availability of information giving a clearer understanding of the potential changes in supply and demand, and finally the new factors which may affect the very nature of decision-making, either in general or specifically as regards education.

Financial constraints

In a situation of regular economic growth, where the resources of the state, regarded as the main educational agent, may be presumed to be relatively stable, an instrument such as an education plan is obviously entirely justified and legitimate. But in a situation of sharply fluctuating resources, in which economic growth is no longer the order of the day, there is little sense in a regulating system based on unchanging premises.

For example, in France today the idea of a state plan has replaced that of a national plan, with the state laying down general policy guidelines rather than specifying actual activities. Accordingly, in the French system, the planning role of the state is to lay down programme laws which give rise to contracts between the state and the regions, with no reference to the traditional framework of the five-year plan. The 'plan for the future' (*plan pour l'avenir*) proposed in 1987 by a Minister of Education was not related to a national five-year plan, but was more like a political platform mapping out a strategy for educational change.

If we look closely at the development of planning, it can be seen that plans are meaningful only at the local or 'micro' level, and that their time-span is limited to the short term. They have become a means of implementation rather than the reflection of a process for forecasting action and mobilizing resources. There is of course no denying that for a state which intends to remain strong, planning provides a framework for negotiating debt servicing, obtaining international financing, increasing investment rates and even setting forth a strategy for individual reconversion. But this will be strategic planning, with a medium- and long-term view, and not the preparation of a specific instrument for a set programme of activities.

The first consequence to emerge from this trend is the need to explode the mystery of the plan as a medium- and long-term instrument, seen in macro-economic terms. On the same lines of thought, a planning process leading to precise objectives is perceived by many as being too analytical and technocratic, and irrelevant to the reality of the social and economic scene. While this view is partly explained by the uncertainty of the financial constraints on state resources, the need to show up the plan for what it is can also be explained by the complexity of the social actors wishing to have a say in decision-making concerning educational demand. But in situations where the educational field, and those involved in it, are heterogeneous, compartmentalized and diversified, planning is no longer applicable since by definition it can only exist where the process is a simple one consisting of stable, homogeneous elements.

Availability of information

The second series of forces which influence decision-making and its tools relate to the nature and availability of information. It is accepted that all decision-making today must be based on an optimization of relevant information. This information is of various kinds, ranging from systematic periodic statistics to sampling and in-depth surveys and leads to psycho-social surveys to determine motivations, these in turn being subsequently sifted, compared and analysed. This moving mass of information, which should ideally be structured by starting with the most complex material and gradually reducing it to statistics, now has available to it new means of transmission and communication. Access to mainframe computers, rapid transmission by diskettes enabling microcomputers to process huge quantities of new information, satellite transmission and videotex which enable information to be transmitted and exchanged, as well as responded to, all of these in theory clearly provide the decision-maker today with a vast potential store of knowledge which should give him far greater scope for creativity than was hitherto the case.

Decision-makers often imagine they have far more latitude for intervention than is actually the case. In fact, if a dense network of information is converted into an organized, readily available information base, giving decision-makers, or their back-up teams, a clear picture of what can actually be done, it is likely that their 'criteria of satisfaction' may be applied more forcefully than before. These information networks and means of communication actually exist. In the years to come they are bound to influence decision-making, which today is still based on supposition but tomorrow will be based on fact.

Quality of information

The third force which may change decision-making, hence the ability to translate community perceptions into action, is the innovation of software reproducing 'artificial intelligence', using, for example, concepts such as the Expert method, designed to reconstruct decision-making processes. Drawing on the empirical experience of the decision-maker when dealing with real-life situations, artificial intelligence rules out fanciful hypotheses and bases thought structures and methods of action on established experience, backed up by the dense network of information referred to above.

In conclusion, the plan will become a management tool, while analysis and forecasting, with the help of the information networks and computerized reasoning processes, will substantially modify the kinds of options faced by government officials, private companies, local authorities and specialized non-profit-making bodies. All of these agents, equipped with new means of information, communication and decision-making, will henceforth be called upon to play an unprecedented role of leadership and intervention in education and training. What kind of process of collective participation and action will result from this is not yet known; and there is also some fear that a possible scenario of polarization may emerge, with considerable power concentrated in the hands of a minority of decision-makers. In that case the next step will be to try to establish some counteracting force.

New processes

As we have just seen, planning is meaningless unless it is viewed as a process conducted by a variety of actors within a wide range of structures. As the purpose of planning is not to prepare plans (which are its 'products'), we should examine how far the functions of those involved in planning are likely to change given the context and trends referred to above. If uncertainty about the medium and long terms is likely to persist, if the decision-maker's actual scope of action is restricted by relatively permanent, hence 'irreducible' factors, then in order to act within the narrow limits left to him it is absolutely necessary for him to receive reliable information and analyses on a regular and frequent basis. This means that the planners' function will be primarily to gather, process, analyse and then disseminate information, and to report on it to decision-makers. In this way, the bases for choosing this or that alternative will be as close as possible to reality.

The fact is that decision-makers do not have to take a decision at a given time, bearing in mind the range of possible options for establishing a set line to be followed. There has probably never been any such set linear system. It is even less likely to exist in a context of permanent shortages and crises. This is why decision-makers today must adopt a less cut-and-dried position, at a time when their analysis is less causal and, so to speak, less technocratic. This does not mean that their approach will be strictly pragmatic and intuitive, or that it should be based solely on their own criteria of satisfaction. We shall now seek to understand the nature of this approach by reviewing the inconsistencies of the present system and trying to outline the concept of strategic piloting.

INCONSISTENCIES EMERGING FROM OBSERVED TRENDS

As we have seen, there is no symmetric relation between the heterogeneous factors making up the 'social demand' for education, and the responses offered. As demand grows in diversity and its range of component parts becomes more entangled, traditional responses are no longer adequate, and new responses are at times somewhat inconsistent and divergent. In other words, there is no single field of demands which can be covered by a single field of responses. As there is no linear causal link between these two forces, and they meet solely by a confluence of factors, the result is synergy rather than a logical predictable construct. This new process is intrinsically more heuristic than algorithmic, and it is consequently impossible to foresee how a response can be provided by establishing a particular configuration of the various factors involved.

THINKING IN TERMS OF STRATEGY

It is precisely the idea of 'strategy', as used in industry, which corresponds to the approach to any market which is segmented in this way. In the world of trade and industry the notion of segmentation is due to the differentiation of products, services and cost-effect relationships; but the conditions which produce it do not seem to be totally alien to a world apparently so different as that of education.

We have seen that an educational strategy cannot be devised on the basis of calculated projections or forecasts, but must be rooted in an overall knowledge of the complex present-day situation which often carries within it the embryo of future trends; this approach is sometimes called 'forecasting the present'. By detecting the factors which are vectors of change, we may gradually come to understand the nature of the changes that affect the educational order and the demand for education. It is essential to begin by delimiting areas of uncertainty, such as the root causes of failures in the school system, especially as regards technical education, the real causes of the disaffection of parents and pupils, and so on.

Identification of these areas will gradually make it possible to remove any ideological bias from our appreciation of the facts. Any understanding of a situation is invariably deeply tainted by the observer's value judgements, and unrealistic objectives are often set as a result of an ideological view of reality. If ideology is no longer the sole criterion for determining objectives, and if objectives are partly shored up by a better understanding of the areas of uncertainty, then two approaches may be adopted. The first might be compared to some extent with that adopted in causal planning, although it is more ambitious as it involves a deeper concern to understand the complexity of the context. This approach is 'strategic planning', entailing a variety of hypotheses to explain a situation that needs to be remedied. These hypotheses may serve as a basis for the construction of response scenarios, since some of them may point in the opposite direction to the end sought. Response scenarios will make it possible to bring these cases of drift back on course. Only when these scenarios have been drawn up will it be possible to identify the combination of means that will be consistent with the ends in view. This approach, which is more flexible than 'planning by projection', goes perhaps too far in that its objectives, once set, cannot be changed. The fact is that objectives are as vulnerable as resources to unforeseen obstacles which may crop up on the path first chosen. An over-technocratic or over-analytical application of strategic planning would disregard the interdependence of objectives, resources and obstacles.

The second aspect of the strategic approach is of a less theoretical nature. It consists of joint action involving a team of actors who pilot educational strategy along a global course, combining the implementation and formulation of tasks with their revision and constant readjustment to ensure that the objectives are consistent with the resources available, and that the resources can deal with the obstacles and are reflected in the constant revision of the objectives. This kind of approach, which is more dynamic and involves far greater participation, means that decision-makers must meet three requirements. First of all, they must be constantly aware of prevailing trends or signals so as to create the necessary conditions for the realization of a collective idea, based on a shared vision of the future. This idea can only become a reality if it is based, first and foremost, on anticipation of a hoped-for or expected situation, and if it involves the active participation of the members of the team producing the collective idea.

In addition to a change of attitude by the decision-maker, a second requirement must be met: the establishment of an information and communication system that is both well supplied and highly developed, and which can ensure a continuous supply of observations, analyses and study findings, which will serve as the basis for the preparation of scenarios and the mobilization of the resources needed to give effect to the decisions taken and the resulting tasks to be carried out.

The third and final requirement depends on the ability to evaluate contents and strategies, and the resources mobilized. In a continuing information system, decision-makers and their back-up teams must assess the results achieved in relation to the original objectives set. It is this collective action comprising analyses, resource mobilization and ongoing revision which constitutes the strategic piloting to be adopted in the future when it comes to determining education policies and, indeed, social policies in general.

This dynamic action by agents taking a collective approach which does not systematically follow the obstacles-objectives-resources cycle, but can at any given time modify that cycle, will reappear in the way in which the orientation and implementation of educational activities are determined, whether at the central state level, at the level of specific programmes or within public or private institutions.

EDUCATION, STRATEGIC PILOTING AND THE STATE

We have suggested that decision-makers should be surrounded by a team of people who are both analysts and, at a later stage, operators. The difference between upstream and downstream planning will consequently be less rigid than it seemed some years ago. Regroupings of decisions will be proposed, which it will be difficult to dissociate from implementation, since general policy analysts will be required to give effect to their proposals, committing themselves as technicians and playing their social role to the full.

In adjusting to the changing relationship between the ends and the means, decision-makers and those around them will no longer follow a predetermined path, but will be required to pilot their multiple choices in the general direction of a single objective, as revised and confirmed.

Strategic piloting seems to foster the emergence within the structure of autonomous action making it possible to narrow the gap between producers and consumers of education or training products. If this gap can be effectively narrowed, collective participation will become a realistic goal, and the nature of the educational product will reflect at one and the same time the demands and the resources of both those proposing it and those using it.

This is where responsibilities should be more appropriately shared between groups of individuals, communities, intermediate structures, associations, etc., and the state, whose role should gradually move away from that of operator to the more standard-setting one of compensator. Although it is true that for the reasons referred to above, this sharing of responsibility is not everywhere the same, and cannot be decreed according to a single model, the general trend seems to suggest that as the social fabric becomes increasingly made up of intermediate groups which are effectively autonomous, and to which material and particularly financial resources can be delegated, the state will then be able to resume its prime function of upholding social justice and the values of equity.

There remains the question of the standards for evaluating the results achieved. It is unlikely that the state alone can determine any such criteria. In so far as industry will increasingly take responsibility for educational and training activities, there can be no question of relying solely on the state to bring evaluation back into line with the formal school system. Various professional groupings (banks, insurance companies, airline companies, etc.) have already established recruitment, selection and promotion criteria based on types of training and education whose content, methods and structures they have themselves laid down. One of the key questions which will arise in future will be that of recognizing results achieved by various—and in some cases, as we have seen above, even diverging—ways and means, so as to ensure a collective recognition of proven results. It is likely that such certification or recognition of achievement will be in the hands of joint bodies in which the state will naturally play a major role but over which it will in no case have a monopoly. ■

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